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An assessment of four HEW-USOE summer research/evaluation training institutes at the University of New Hampshire.

Everett William Barnes
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AN ASSESSMENT OF FOUR HEW-USOE SUMMER RESEARCH/EVALUATION TRAINING INSTITUTES AT THE UNIVERSITY OF NEW HAMPSHIRE

By

EVERETT WILLIAM BARNES, JR.

A Dissertation Submitted to the Graduate School of the University of Massachusetts in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

School of Education
Amherst, Massachusetts

January, 1973

AN ASSESSMENT OF FOUR HEW-USOE SUMMER RESEARCH/EVALUATION TRAINING INSTITUTES AT THE UNIVERSITY OF NEW HAMPSHIRE

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AN ASSESSMENT OF FOUR HEW-USOE SUMMER RESEARCH/EVALUATION TRAINING INSTITUTES AT THE UNIVERSITY OF NEW HAMPSHIRE (January, 1973)

EVERETTT W. BARNES, JR.

B.E., Plymouth State College

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In recent years there has been a growing demand, both inside and outside the educational profession, for a greater degree of accountability surrounding public education. Accompanying this demand has been the need to train professional evaluators and expose educational decision-makers to the fundamental concepts of evaluation strategies.

In order to provide more continuity to the training of evaluators, as well as to encourage more professional educators to become researcher/evaluators, the United States Office of Education/ Department of Health, Education and Welfare initiated a series of summer training institutes.

Four of these six-week training institutes were held at the University of New Hampshire, Durham, New Hampshire, from 1967 until 1970. They were entitled:

1967 - "Researching Crucial Educational Issues in Northern New England"

1968 - "Researching and Evaluating Educational Innovation in New England"

1969 - "The Challenge of Assessing Curriculum Changes in New England"

1970 - "Planning for Educational Decision-Making in the '70's"

During these four years over 113 professionals were introduced to the concepts basic to educational research/evaluation. However, with the exception of some attempts at internal evaluation, no assessment was made of these institutes relative to their program/

instructional design and the effectiveness of the programs and instruction on the participants.

In the present study, the investigator provides a historical description of the significant events leading to the development and operation of the University of New Hampshire HEW/USOE Evaluation/Research Training Institutes. Through an analysis of these incidents and a Likert-type questionnaire distributed to former institute participants, an assessment of the institutes' effectiveness in meeting five common program objectives was made. These objectives were:

- The development of a piece of personal evaluation/research which has relevancy in the person's home environment.
- The study of major alternatives open to the educator in terms of educational evaluation/research methodologies.
- The study of communication techniques applicable to proper implementation of the decision-making process at various levels of the educational system, change in job function or role since attending the institute, and use of instructional materials presented at the institute.
- The use of modern data processing equipment to facilitate the encoding and utilization of research data.
- The reading of current literature with emphasis on the application of literature relevant to the educational research project with which the trainee is involved.

From this analysis, findings, conclusions and recommendations have been made concerning the effectiveness of this approach in training professional educational evaluator/researchers and possible alternatives to such training programs.

Rather than attempt to describe in any depth each element of the study, it might be of more practical value to simply provide a description of the organization of the dissertation.

Chapter I of this dissertation consists of a description of the problem, its significance, the general design of the study, and the assumptions and limitations that are set forth. Chapter II is a review of the research and literature related to evaluation and the training of educational evaluator/researchers. In Chapter III a brief background of the four UNH institutes is presented relative to their objectives, instructional format, and participant characteristics. Chapter IV consists of a description of the methodology utilized in administering that questionnaire to the former institute participants in order to obtain their perceptions with regard to the effectiveness of the summer institutes.

Chapter V consists of a presentation and analysis of the data collected by means of the questionnaire and other related data sources. In Chapter VI, the final chapter, there is a summary of information, conclusions and recommendations based on evidence from the preceding chapter. Also included is an extensive Appendix consisting of tables, data collection instruments and supplemental reports/studies developed on such areas as the role of Blacks in such training institutes.

Dedicated to

Mr. and Mrs. Everett Barnes, Sr.,
for years of encouragement, support and
love in overcoming the obstacles in
achieving this goal.

To C.C.S. -- for helping find my self-confidence when I couldn't.

Acknowledgements

The completion of this study required the assistance of many understanding and dedicated individuals. The sincere appreciation of the investigator is extended to the staff members of the Bureau of Educational Research and Testing Services at the University of New Hampshire and all the former institute participants who responded to this study.

A special debt of gratitude is expressed to Dr. Roger Peck, the investigator's major advisor and committee chairman, for his patient guidance and encouragement during the design, analysis and documentation of this study; and to Dr. Arthur Eve and Dr. James Carmody for their support and suggestions as members of the Graduate Advisory Committee.

A special word of thanks to James Sansouci for his assistance in lessening the many details and tribulations of a doctoral program and to Sherrill Ayles for her many long hours of typing and editing.

Finally, the investigator expresses his deep appreciation and thanks to Dr. Albert Elwell, former Director of the 1970 University of New Hampshire Training Institute, for the many hours of assistance in analysis and discussion of the characteristics of all the training institutes. Without the cooperation of Dr. Elwell, it is doubtful this study could have been brought to a successful conclusion and sufficient gratitude is difficult to express.

PERSONAL SUMMARY SHEET

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Coordinator of Testing and Evaluation, Bureau of Educational Research and Testing Services, the University of New Hampshire. Primary responsibility -- planning, development and implementation of evaluation designs and coordination of the New Hampshire State Department of Education State-Wide Testing Program including workshop dissemination and consulting on test use.

Background Information:

M.Ed. Degree in Public School Administration, University of New Hampshire, 1971

B.E. Degree in Social Studies/Secondary Education, Plymouth State College, Plymouth, New Hampshire, 1965

Two years teaching experience -- secondary school history, Woodsville High School, Woodsville, New Hampshire

Three years as a school administrator (principal), Campton Elementary School, Campton, New Hampshire

Founder and co-director of the Institute for Leadership in Educational Administration

Administrative Assistant for an HEW-USOE summer institute entitled, "Planning for Educational Decision-Making in the 70's"

Chairman of Session D-16, American Educational Research Association, 1972 Annual Meeting, "Studies Related to Testing"

Served as a consultant to a variety of local, state, public and private educational agencies

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CHAPTER I

INTRODUCTION

Development of Educational Evaluation

In recent years there has been a growing demand, both inside and outside the educational profession, for a greater degree of accountability surrounding public education. This accountability takes many forms: PPBS (Planned Program Budgeting System), performance contracting, standardized testing, state-wide assessment programs, educational research and program/project evaluation--to mention only a few.

No one of these approaches to educational accountability is in itself the panacea for the dilemma of how to determine the effectiveness of today's educational programs. Each has its own distinct following of supporters and each also has specific advantages and disadvantages. However, each approach does require trained professionals to implement it as well as professional educators in the field with at least a rudimentary understanding of the concepts it stresses and information it can provide. Initially at least, most of the training for the professional evaluator, as well as the educational practitioner, was in the area of educational research methodologies.

With the decline in the emphasis on educational research in the 1940's and 1950's as the most appropriate determinant of

program success and future direction, new methodologies had to be developed. Educational research, with its stress on randomization of sample, control groups, and development of principles that would act as the foundations for future educational innovation was replaced, to a large extent, with quasi-experimental research design.[1]

Efforts in the educational research/measurement field began to shift from new statistical approaches, once the data had been collected, to valid techniques and instruments for gathering such data. People began to ask how the educational practitioner in the field could, if at all, use this type of data in selecting alternatives in the learning process. There was an apparent growing need for assessment data that didn't rely so heavily on the clinical laboratory approach, but rather concentrated on "real" programs. A new profession thus began to emerge--that of educational evaluation.

Evaluator vs. Researcher

In the beginning it was difficult to distinguish between the educational researcher and the evaluator. Their training in statistics, psychometrics and research design was,for all practical purposes, identical.

It was mainly in their basic concepts of what type of data was "legitimate" for evaluating program/project effectiveness

1 Campbell, Julian C. and Stanley, Donald T., Experimental and Quasi-Experimental Designs for Research, 1969.

that they varied. The researcher stressing heavily data that could be tested for reliability and validity and the evaluator, while still supporting this point of view, arguing also for the use of more judgmental data. Then in the mid-1960's a further break between the two professions occurred. Federal and State agencies began pouring hundreds of thousands of dollars into modern innovative approaches to the problems of education. For a while the experimental and quasi-experimental research methodologies were attempted, but soon the programs became too numerous and bulky to be adequately handled and new assessment methods were sought. Up to that time both had stressed heavily product evaluation--that is determining a program's success or failure only after it was completed. Little or no effort was made to monitor a program for flaws before it was operationalized or even during the actual process stage. However, a substantial movement was growing among evaluators for more than just product evaluation and this resulted in many new evaluation designs exemplified by Stufflebeam's CIPP model (Context, Input, Process, Product evaluation)[2] and Stake's formative/summative evaluation models.[3]

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2 Stufflebeam, Daniel, "Evaluation as Enlightenment for Decision-Making, Association for Supervision and Curriculum Development," January 19, 1968, Sarasota, Florida.

3 Stake, Robert, "The Countenance of Educational Evaluation," Teachers College Record, Volume 68, No. 7, April 1967.

As the educational evaluation profession established itself, the need for a formal training program, apart from that for educational researchers, became apparent. Most training had taken the form of in-service or actual on-the-job training, with one evaluator training another member of his staff.

In order to provide more continuity to the training of evaluators as well as encourage more professional educators to become researcher/evaluators, the United States Office of Education/Department of Health, Education and Welfare initiated a series of summer training institutes.

Four of these six-week training institutes were held at the University of New Hampshire, Durham, New Hampshire, from 1967 until 1970. They were entitled:

1967 - "Researching Crucial Educational Issues in Northern New England"

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1969 - "The Challenge of Assessing Curriculum Changes in New England"

1970 - "Planning for Educational Decision-Making in the '70's"

Training Evaluators

During these four years over 113 professionals were introduced to the concepts basic to educational research/evaluation. Yet, it appears to the investigator to be a curious phenomenon that for four summers, training institutes were held emphasizing evaluation/research methodologies and technologies and yet so

little was done to employ these same processes in determining the instructional quality and assessing the relative effectiveness of these programs.

Internal evaluations were conducted by the institute staff during all four institutes. For the 1969/1970 institutes a test developed by Gene Glass on educational research was administered on a pre-post test basis and gain scores were computed. During 1970 an external evaluation team from the University of Illinois, Urbana, was also employed to examine the institute during its operation.[4] None of these attempts at evaluation, however, can be said to have done more than meet the minimum USOE guidelines for project evaluation. They did not indicate relative effectiveness and were not used in any decision-making process for determining program alternatives for ensuing years.

UNH Training Institute Objectives

Throughout the four institutes it is possible to identify certain general objectives which are common to all of them. By creating a matrix of the objectives by year of the institute and general objective categories of: Research/Evaluation Methodologies; Dissemination, Data Processing, Personal Research/Evaluation Problem and Research/Evaluation Literature, and relating the specific program objectives of an institute to each category, five common institute objectives were identified.

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4 This evaluation team was composed of Dr. Tom Hastings, Dr. Terry Denny and Dr. James Wardrop from the University of Illinois' Center for Instructional Research and Curriculum Evaluation (CIRCE) at Urbana.

These objectives were:

- The development of a piece of personal evaluation/research which has relevancy in the person's home environment.
- The study of major alternatives open to the educator in terms of educational evaluation/research methodologies--i.e., Campbell and Stanley, CIPP, PERT.
- The study of communication techniques applicable to proper implementation of the decision-making process at various levels of the educational system, change in job function or role since attending the institute, and use of instructional materials presented at the institute.
- The use of modern data processing equipment to facilitate the encoding and utilization of research data.
- The reading of current literature with emphasis on the application of literature relevant to the evaluation/research project with which the trainee is involved.

It is due to the fact that these basic objectives did not vary over the four institutes that a longitudinal assessment of those programs is now possible.

Summary

To date no assessment has been made of the relative effectiveness of these objectives or of the instructional effectiveness of the institutes on the participants once they returned to their job functions.

In the present study, the investigator will provide a historical description of the significant events leading to the development and operation of the University of New Hampshire HEW/USOE

Evaluation/Research Training Institutes. Through analysis of these incidents and an assessment of the institutes' effectiveness in meeting the five stated general objectives, recommendations will be made concerning the use of this approach in training professional educational evaluator/researchers and possible alternatives to such programs.

STATEMENT OF THE PROBLEM

The major objectives of this study are 1) to identify the major actors and incidents influencing the inception, organization and implementation of the four HEW/USOE summer training institutes in evaluation/research at the University of New Hampshire, and 2) to determine the relative effectiveness of the program objectives that are reflective of all four institutes.

The specific purposes of the study will be:

1. Through a study of documents from the Bureau of Educational Research and Testing Services at the University of New Hampshire, Department of Health, Education and Welfare - U.S. Office of Education and the Research Training Branch, Division of Research Training and Dissemination-USOE, identify the major actors, incidents and problems crucial to the inception, organization and implementation of the University of New Hampshire institutes.

2. Through the study and examination of the objectives in Figure 1,...

FIGURE 1
COMMON INSTITUTE GOALS AND OBJECTIVES

- the development of a piece of personal evaluation/research which has relevancy in the person's home environment.
- the study of major alternatives open to the educator in terms of educational evaluation/research methodologies--i.e., Campbell and Stanley, CIPP, PERT.
- the study of communication techniques applicable to proper implementation of the decision-making process at various levels of the educational system, change in job role or function since attending the institute and the use of instructional materials developed at the institute.
- the use of modern data processing equipment to facilitate the encoding and utilization of research data.
- the reading of current literature with emphasis on the application of literature relevant to the evaluation/research project with which the trainee is involved.

to arrive at a set of specific conclusions and recommendations relative to these and other summer training institutes in research/evaluation.

3. Through the use of a multifaceted assessment instrument only, on a non-control group design, solicit responses reflective of these selected objectives.

4. Through the use of "closed" and "open-ended" questions on a written questionnaire, determine the extent of the participant's involvement with evaluation/research projects prior to and after attending the institute, insights into the relative strengths and weaknesses of these institutes

and any change in job function or role as a result of attending an institute.

5. Through "open-ended" questions determine the extent that participants are used to train personnel in evaluation/research once they return to their positions.

6. Through the use of a Likert Five Response Pattern Rating Scale in the assessment instrument, non-control group design, determine the value of the instructional effectiveness of the program as perceived by the participant during and after the institute.

7. Through subjecting the data from the Likert Rating Scale to a statistical analysis using chi-square to test for the goodness of fit of the matrix modes, as well as a weighted mean score, provide the basic data needed for judgments of program effectiveness.

8. Through an analysis and synthesis of the findings generated from the procedures described, develop conclusions focusing on the relative degree to which the five objectives of the University of New Hampshire summer training institutes have been met.

9. From the conclusions developed from the study, develop recommendations relating to a) the general

instructional design of summer training institutes, b) the selection and recruitment of participants, c) the use of consultants, and d) alternative training designs.

DEFINITION OF TERMS

The following terms are defined operationally as they will be used in this study:

B.E.R.T.S. - The Bureau of Educational Research and Testing Service, which for four consecutive summers, 1967-1970, was responsible for the coordination and administration of the six-week summer training institutes.

CIPP - An acronym formed from the first letters of the four basic kinds of evaluation: context, input, process, product. CIPP (context, input, process, product evaluation) was developed by Dr. Daniel Stufflebeam at the Center for Evaluation, Ohio State University as a tool for "enlightened" decision-making. CIPP was one of the major instructional segments in the summer training institutes.

Congruence Evaluation - Evaluation conducted to discover discrepancies between system objectives.

Context Evaluation - This type of evaluation is systematic and macroanalytic and its purpose is to provide a rationale for determination of objectives for the system. It defines the environment, describes the desired and actual conditions pertaining to the environment, identifies unmet needs and unused opportunities and diagnoses the problems that prevent needs from being met and opportunities from being used.

Decision Alternatives - Two or more different actions that might be taken in response to some situation requiring actual action.

Decision Setting - A total set of environmental circumstances governing both analysis and choice concerning especially the degree of change that is being sought and the amount of information grasp (understanding) that exists to support the desired change.

Evaluation - Educational evaluation is the process of delineating, obtaining, and providing useful information for judging decision alternatives.

Formative Evaluation - Evaluation which is concerned with program improvement.

Homeostasis - A decision-making setting characterized by decisions to effect small, remedial changes supported by a high level of relevant information grasp.

Neomobilism - A decision-making setting characterized by plans to effect large change supported by an initial low level of relevant information grasp.

Input Evaluation - This type of evaluation is essentially *ad hoc* and micro-analytic and its purpose is to provide information for determining how to utilize resources to meet program goals. It identifies and assesses relevant capabilities of the responsible agencies, strategies for achieving program goals, and designs for implementing a selected strategy.

Process Evaluation - This type of evaluation provides periodic feedback to persons responsible for implementing plans

and procedures. It has three objectives (1) to detect or predict defects in the procedural design or its implementation during the implementation stages (2) to provide information for programmed decisions and (3) to maintain a record of the procedure as it occurs.

Product Evaluation - This type of evaluation measures and interprets attainments at the end of the project cycle and as often as necessary during the project term. It assesses the extent to which ends are being attained with respect to change efforts within the system.

Summative Evaluation - Evaluation which is concerned with determining overall program effectiveness.

PERT - Program Evaluation Review Technique, a management scheme developed during World War II which depends on flow charts, time/cost data, etc., and which has been modified for implementation in educational program/project evaluation.

Behavioral Objective - The statement of goals and objectives in measureable terms as defined by Maegher and Walbesser and arranged in learning sequences known as learning hierarchies.

"Star" Consultants - Those resource personnel who were used during the summer institutes to instruct certain segments of the program because they had been identified as leaders or specialists in that field, i.e., Dan Stufflebeam, CIPP; Desmond Cook, PERT; Henry Walbesser, Behavioral Objectives.

Institute - This term will be used to refer to all four six-week summer institutes held at the University of New Hampshire

to train educational evaluator/researchers; when a specific institute is being cited, it will be identified by either its date or title.

ASSUMPTIONS OF THE STUDY

1. That the respondent will react candidly and honestly to questions concerning the strengths, weaknesses and general value of the instructional segments of this training institute.

2. That the respondents will follow the directions given with each questionnaire.

3. That it is assumed that the multifaceted assessment instrument used in this study will provide insights into the effectiveness of the New Hampshire training institute.

4. That respondents will react to the questionnaire in terms of their own experiences as felt at the time of their institute.

5. That the use of one multifaceted assessment instrument will assess to a fair degree the four separate summer training institutes in the types of responses being solicited.

LIMITATIONS OF THE STUDY

1. The present study is limited to the period of time from July, 1967, to August, 1970. Due to the nature of the experiences being evaluated, much of the data is being collected on the basis of individual participant recall of information and events that individuals had been involved in approximately two to four years previously.

2. Due to changes in addresses, death, and other external circumstances which might prevent a former trainee's participation, the study will be limited to those who are reasonably accessible, and no formal on-site interview or telephone interview will be used.

3. No extensive attempt will be made to validate or field test the reliability of the questionnaire that will be used to solicit former institute participants' reactions.

4. The investigator, having been a former participant in one training institute (1969) and having been employed as an administrative assistant for another (1970), may have biased his objectivity in interpreting some of the questionnaire's open-ended items.

5. Due to the extreme geographic distances involved, interviews were not conducted with a major number of previous

institute participants. However, such interview data from numerous other sources may be cited periodically.

6. That one multifaceted assessment instrument was used in assessing the activities from four consecutive summer institutes.

DESIGN OF THE STUDY

The study will incorporate two types of designs: 1) a case study method and 2) a multifaceted assessment instrument design. The following sections provide a description of the use of these methods in the proposed study.

The Case Study Method

A variety of unobtrusive sources will be synthesized and analyzed in order to describe the inception, planning, organizational and operational phases of the four New Hampshire institutes and to identify the major actors and incidents related to these phases.

To accomplish this, data from such sources as the following will be analyzed: 1) original proposals submitted by the Bureau of Educational Research and Testing Services 2) correspondence between the institute director and officials in the Department of Health, Education and Welfare 3) correspondence between the institute director, participants, and consultants 4) official final reports submitted by B.E.R.T.S. to the Department of Health, Education and Welfare at the conclusion

of each institute, 5) interviews with previous directors, consultants and participants, and 6) external evaluations and observations made on the institutes, if any.

The data obtained from these sources will be synthesized and analyzed and will be presented using a narrative format. This narrative will provide the necessary background for the second specific purpose of the proposed study which is the assessment of the degree of accomplishment and instructional effectiveness of the five selected general objectives for the University of New Hampshire Training Institutes.

The Use of a Multifaceted Assessment Instrument

This portion of the study will incorporate a multifaceted assessment instrument design. These assessment instruments will be used to determine the effectiveness of the UNH Evaluation/ Research Training Institutes in meeting the five selected objectives. The following is a list of the objectives and the means by which they will be assessed in the proposed study.

Objective One -- the development of a piece of personal evaluation/research which has relevancy in the person's home environment.

Assessment Procedure to be Used: To assess this objective, a series of "open" and "closed" questions on a written questionnaire will be used. These questions will relate to the number of evaluation/research projects written prior to and since attending the institute, the specific areas these proposals dealt with and their present operational status.

Objective Two -- the study of major alternatives open to the educator in terms of educational evaluation/research methodologies, i.e., Campbell and Stanley, CIPP, PERT.

Assessment Procedures to be Used: To assess this objective a Likert Five Response Rating Scale will be developed and used. This scale will call for the rating of the participants' attitude toward the value of the bulk of the institute's instructional program during the summer and once he returned to his job. The Likert Scale will be used to assess the following areas: behavioral objectives, learning hierarchies, program/project management, PERT, CIPP, writing computer programs, use of computer hardware, statistics, interaction with major actors in the institute, skills, in proposal writing and required readings.

This multifaceted questionnaire will be distributed to 112 former institute participants. Participant responses to the Likert Scale portion of this instrument will be grouped by professional roles. That is, by Teachers, School Administrators, State Department of Education Personnel, Research/College Personnel. The data will be subjected to a statistical analysis using chi-square to test for the goodness of fit of the matrix modes. If the cell frequencies are small,the Yates Correction for Continuity Factor will be applied. The data will also be subjected to analysis by weighted mean score and compared for significant differences.

Objective Three -- the study of communication techniques applicable to proper implementation of the decision-making process at various levels of the educational system, change in job role or function since attending the institute and use of instructional materials developed at the institute.

Assessment Procedures to be Used: In order to assess the accomplishment of this objective, three procedures will be used: open and closed questions on the questionnaire relating to job role or function changes, the use of institute materials for in-service training after the institute as well as the Likert Rating Scale to assess the participants' interaction with B.E.R.T.S. staff, consultants and other participants.

The open-ended and closed questions will be analyzed and synthesized and the data recorded for each summer institute and in total. The data from the Likert Scale will be treated as described previously for Objective Two.

Objective Four -- the use of modern data processing equipment to facilitate the encoding and utilization of research data.

Objective Five -- the reading of current literature with emphasis on the application of literature relevant to the evaluation/research project with which the trainee is involved.

Assessment Procedures to be Used: Both these objectives will be assessed using the Likert Five Response Rating Scale. Objective Four will be divided into the two tasks of actually utilizing the skill of writing a computer program and the "hands on" practical experience of using computer hardware. Objective Five will be dealt with as it is stated.

Additional Areas to be Assessed

In addition to the five stated objectives, the multi-faceted instrument will also seek responses through open and closed questions in the following areas:

- additional course work in evaluation/ research since attending the institute
- the attitude toward using "star" consultants
- whether institute participants should be selected on a heterogeneous or homogeneous basis
- general strengths and weaknesses of the institute design

Various unobtrusive measures may also be used though they may not be available for each institute. These include: 1) on-site follow-up interviews done by a Black participant observer, 2) comments from consultants, 3) logs maintained by institute participants and any unsolicited responses from the institute staff, and 4) previous evaluations such as that conducted in 1970 by CIRCE. Data from all the above sources will be analyzed and synthesized, and conclusions drawn on the basis of emergent patterns.

STUDY POPULATION

The study population for the present evaluation will consist of four separate groups. These groups represent participants who attended HEW/USOE sponsored summer training institutes in educational evaluation/research at the University of New Hampshire, Durham, New Hampshire, from 1967 to 1970. These institutes were entitled:

1967 -- Researching Crucial Educational Issues in Northern New England

1968 -- Researching and Evaluating Educational Innovation in New England

1969 -- The Challenge of Assessing Curriculum Changes in New England

1970 -- Planning for Educational Decision-Making in the '70's

The geographical representation and numbers of participants for each group is as follows:

Year	Geographical Area	Number of Participants
1967	New Hampshire	30
1968	Northern New England	25
1969	New England	29
1970	National	29

These 113 participants represent 19 states, as well as Saipan in the Marianna Trust, and include teachers, guidance personnel, school administrators, and State Department of Education officials. Educational qualifications ranged from bachelor to doctoral degrees and previous experience in evaluation/research, from none to working in centers directly responsible for such activities.

SIGNIFICANCE OF THE STUDY

With the ever increasing number of dollars being spent on innovative practices in education, there is an equally growing concern for the effectiveness these dollars are buying. Since the passage of the landmark, Elementary and Secondary Education Act, the authorities responsible for authorizing project funds have been more and more convinced of the necessity for better program/project management, evaluation and audit.

There also appears to be a certain decline in the status of educational research, though it has not reached avalanche

proportions yet. Educational research is being perceived as too clinical and not realistic enough. Teachers and administrators are not capable of controlling variables to the degree they are controlled in various research studies. They are calling for new techniques, new models, to evaluate learning, pupil/teacher performance and program effectiveness as it is occurring and not five or ten years afterward.

A relatively new field is opening in education employing the use of empirical data, psychometrics and various research strategies along with the skills of the trained social and behavioral scientists. The field of educational evaluation is in a very neophytic stage, with a critical shortage of trained, competent personnel, and training centers capable of providing such personnel and the instrumentation needed to make them successful.

Although few schools offer graduate programs in educational evaluation and many continue to offer advanced degree programs in various areas of educational research, some attempts to rectify this imbalance are being made.

The National Division of Research Training, Office of Education, Department of Health, Education and Welfare, headed by Dr. John Egermeier has,in the past, funded a number of projects designed to train teachers, administrators and State Department personnel in the skills needed for effective evaluation.

As Stake and Denny comment in their chapters, "Needed Concepts and Techniques for Utilizing More Fully the Potential

of Evaluation" in the 68th Yearbook of the National Society for the Study of Education:

> Many similar programs (i.e., to train educational evaluators) can be identified in centers and laboratories across the nation. They have yet to draw effectively upon the experiences and training materials of each other.

The Bureau of Educational Research and Testing Services at the University of New Hampshire has for the past four summers (1967-1970) been the recipient of four separate grants to conduct six-week training institutes in educational research/evaluation by the Bureau of Research, Office of Education, Department of Health, Education and Welfare. Over these four summers the program objectives have remained relatively constant as have the areas covered in the instructional segments.

It is with these factors in mind,as well as the fact that the Bureau of Educational Research and Testing Services was the only agency across the nation during the summer of 1970 to be funded for conducting such a training program, that this study is being undertaken.

The significance, hopefully, of such a study will be to identify instructional areas that are not only relevant at the time they are presented, but were also implemented when the trainee returned to his job position. Concern will also be shown to those instructional areas that appear to be more effective with groups from various occupational and experiential backgrounds than with others.

The information and feedback gathered from this evaluation will be used to assess the general effectiveness of 1) summer training institutes in preparing educational researcher/evaluators and 2) of specific instructional areas during these institutes for use in the development of future programs.

ORGANIZATION OF THE DISSERTATION

Chapter I of this dissertation consisted of a description of the problem, its significance, the general design of the study, and the assumptions and limitations that are set forth. Chapter II will be a review of the research and literature related to evaluation and the training of educational evaluator/researchers. In Chapter III a brief background of the four UNH institutes will be presented relative to their objectives, instructional format and participants. Chapter IV will consist of a description of the methodology utilized in the development of the questionnaire and the processes utilized in administering that questionnaire to the former institute participants in order to obtain their perceptions with regard to the effectiveness of the summer institutes. Chapter V will consist of a presentation and an analysis of the data collected by means of the questionnaire. In Chapter VI, the final chapter, there will be a summary of information, conclusions and recommendations based on evidence from the preceding chapter.

CHAPTER II

REVIEW OF RELATED RESEARCH AND RELATED LITERATURE

The present study concerns itself with an assessment of the effectiveness of summer institutes training educational researchers/ evaluators. In order to provide the reader with a background to both educational research and educational evaluation, the related literature has been divided into two sections. The first, entitled, The Historical Perspectives of Educational Evaluation: An Overview; examines the following: 1) Defining Educational Evaluation; 2) Experimental Research Designs vs. Educational Evaluation; 3) The Demand for Accountability in Education; and 4) The Weaknesses of Existing Evaluation Designs. The second section, Emerging Models of Educational Evaluation, addresses itself to the topics of: 1) An Overview of Several Evaluation Designs for Decision-Making; 2) The CIPP Evaluation Model; and 3) The Emerging Profession of Educational Evaluation and the Training of Educational Evaluators.

THE HISTORICAL PERSPECTIVES OF EDUCATIONAL EVALUATION: AN OVERVIEW

> Evaluation is a necessary foundation for effective implementation and judicious modification of our existing programs. At this point, evaluation is probably more important than the addition of new laws to an already extensive list of educational statutes... Evaluation will provide the information we require to strengthen weak programs, fully support effective programs, and drop those which simply are not fulfilling the objectives intended by the Congress when the programs were originally enacted.[1]

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1 Finch, Robert, U.S. House of Representatives, Committee on Education and Labor, "Hearings on the Extension of Elementary & Secondary Programs," Part IV, Government Printing Office, 1969.

Introduction

Although the area of modern educational evaluation is relatively new, the issues surrounding it are not. The struggle between the educational researcher and the educational evaluator is a constant one, even though both employ similar methodologies and in many cases have similar goals in mind. If those goals suggest that failure to learn is not the fault of the teacher or the child but rests in an identifiable third realm, the problem then is not so much one of what that third realm is as how one proves that it is responsible for the failure. It is in defining what process is most effective in determining this proof that the controversy arises.

With the rise of progressivism in education, there was a corresponding rise in the acceptance of the concept that there were "laws" of child development which made children "ready" to learn at certain periods in their life, but not before.[2] Leading this movement sixty years ago was Edward Thorndike. Thorndike had taught at Teachers College, Columbia University,for over forty years and at the time was the single most influential figure in American education. He was a highly trained psychologist whose entire professional existence centered around laboratory experiments and statistical analysis. In short, Edward Thorndike was the real grandfather of educational research.

Educational research is a complex activity whose conceptual foundations reach deeply into science and the philosophy of science.

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2 Mayer, Martin, The Schools, Double Day & Co., Inc., Garden City, New York, 1963.

Its roots are entangled in the legitimate intent to develop theories related to educational processes and the more dubious ambition of legitimizing education through "applied scientific methodology." According to Kerlinger (1969) educational research is social scientific research applied to educational problems and its universe of discourse is all phenomena related to human behavior in the educational process. As social scientific research it takes on many of the aims and functions of science:

> It is not an activity whose purpose is to amass facts. Nor does it have a primary concern for improving the world and mankind's lot... Its basic aim is to discover or invent general explanations. In a word, its purpose is theory or explanation and its goal is to mimic the "nomothetic" nature of science, that is it seeks to establish laws or generalizations about the nature of learning.[3]

Educational research has been severely criticized for its inadequacies from both within and without. The internal criticism revolves around the general dissatisfaction with the quality of the research being done, especially with regard to design and statistical analysis. The external criticism comes from the educational practitioner who believes that practicality should be the sole criterion of such research; and because most of our institutions are practioner-dominated, this remains the prevailing point of view.

Even today, though most of the theories purported by Thorndike's experiments have been long since discredited, his influence is still strongly felt in education. The residue is not a pleasant one

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3 Kerlinger, Fred, "Research in Education," Encyclopedia of Educational Research, 4th Edition, MacMillan Co., London, 1969.

according to Martin Mayer (1963):

> Appalling numbers of teachers have lost much of their native ability to draw conclusions from observation, because the "correct" conclusions have already been given to them in their training. Nothing blocks improvement in American education quite so firmly as this superstitious belief in the juju of educational research.[4]

It is interesting to note that at the same time Thorndike was extorting his experimental research model, William James was expressing the opinion that, although such research should be encouraged, it was self-limiting merely because of the number of uncontrollable variables. What was needed even more, at all times according to James, was "a happy tact and ingenuity to tell us what definite things to say and do when the pupil is before us."

Through the evaluation of educational thought, the concept of experimental research, a tidal wave in Thorndike's period, has diminished in influence to a ripple. This is not to suggest that educational research does not have its place in the study of educational processes but rather that it is now one tool in that study. In its place have appeared a number of different strategies clustered under the term, educational evaluation, to provide alternatives for educational decision-making.

Defining Educational Evaluation

In today's version of educational "one-up-manship," many of the terms and phrases used to define various educational processes become

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4 Mayer, Martin, The Schools, Double Day & Co., Inc., Garden City, New York, 1963.

muddled in ambiguity with no two professionals seeming to be able to agree on an explicit definition for anything.

The question of expressing a comprehensive definition for educational evaluation can therefore be a perplexing one. Stufflebeam (1970) states that three particular definitions of evaluation have gained common acceptance and have certain utilities and certain disadvantages (Fig. 1):

FIGURE 1

ADVANTAGES AND DISADVANTAGES ACCRUING FROM DIFFERENT DEFINITIONS OF EVALUATION

	Advantages	Disadvantages
(1) E ≡ M (Evaluation equals Measurement)	Builds directly on scientific measurement movement Objective Reliable Data are mathematically manipulatable Norms and standards emerge	Narrow instrumental focus Inflexibility because of time and cost to produce new instruments Judgments and the criteria for making them are obscured. Variables currently considered as not measurable are eliminated, or labeled unimportant
(2) E ≡ (P ≅ O) (Evaluation is the Congruence between Performance & Objective)	High degree of integration with the instructional process Data available on both student and curriculum Possibility of feedback Objective referent and built-in criteria Possibility of process as well as product data	Places evaluator in technical role Focuses narrowly on objectives Elevates behavior as the ultimate criterion of every educational action Focuses on evaluation as a terminal process
(3) E ≡ PJ (Evaluation equals Professional Judgment)	Easy to implement Brings all variables into consideration Takes experience and expertise into account No time lag while waiting for data analysis	Dictated mainly because of ignorance or lack of sophistication Questionable reliability Questionable objectivity Not susceptible to ordinary scientific prudential measures Both data and criteria are ambiguous Generalization very difficult

> The first is an early definition which equated evaluation with measurement, as this concept had developed in the twenties and thirties. This definition is symbolized by E = M... The second definition is that evaluation is determining the congruence between performance and objectives, especially behaviorial objective as is symbolized by E ≅ (P ≅ O)... The last school of thought defining evaluation is E ≅ PJ or evaluation equals professional judgment.[5]

He goes on to indicate that there apparently is no definition of evaluation available that does not have several serious disadvantages as concomitants. The problem becomes even more acute when one attempts a distinction between educational research and evaluation.

The condition of educational jargonese is such that words with totally different meanings are often substituted for one another. It therefore becomes difficult to separate and clearly define the differences between, in this case, evaluation and research.

Michael Scriven (1967) said that evaluation itself was a methodological activity...

> The activity consists simply in the gathering and combining of performance data with a weighted set of goal scales to yield comparative or numerical ratings, and in the justification of (a) the data-gathering instruments, (b) the weightings, and (c) the selection of goals.[6]

Stake and Denny (1969) considered evaluation as:

> The discovery of the nature and worth of something. In relation to education, we may evaluate students, teachers, curricula, administrators, systems, programs and nations. The purposes of our evaluation may be many, but always, evaluation attempts to describe something and to indicate its perceived merits and shortcomings.[7]

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5 Stufflebeam, Daniel, Education Evaluation and Decision-Making, PDK Commission, Ohio State University, 1970.

6 Scriven, Michael, "The Methodology of Evaluation," AERA Monograph Series, Rand McNally, Chicago, 1967.

7 Stake, Robert and Denny, Terry, Educational Evaluation: New Roles, New Means, National Society for the Study of Education, 68th Yearbook, Part II, Chicago, 1969.

In a similar vein Gene Glass (1968) defined evaluation as the:

> ...gathering of empirical evidence for decision-making and the justification of decision-making policies and the values upon which they are based. Evaluation can contribute to the construction of a curriculum, the prediction of academic success, or the improvement of an existing course. But these are the roles it can plan and not its goal. The goal of evaluation must be to answer questions of selection, adoption, support and worth of educational materials and activities...In the past we have avoided the goal of evaluation with its inherent threat to teachers, administrators, and curriculum developers and have concentrated on one or more of the non-threatening roles evaluation can play.[8]

Scriven (1967) makes a clear distinction between the roles and the goal of evaluation. The goal he says is always the same: to determine the worth of something. The roles depend on what that something is and on whose standards of value will apply.[9]

These standards may be either in absolute or relative terms according to Daniel Stufflebeam. An absolute standard might be that students on the average should achieve at least some specified score on a selected achievement test. A relative standard might be that the group of students receiving a new program should achieve scores on a selected achievement test which on the average are higher than scores achieved by an equivalent group of students which received some alternative program. Regardless of the type of evaluative standard used, the data from such studies are analyzed after a complete cycle of the program to determine the extent to which the objectives were achieved.

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8 Glass, Gene, The Evaluation of Instruction: Issues and Problems, Holt, Rinehart and Winston, New York, 1968.

9 Scriven, Michael, "The Methodology of Evaluation," AERA Monograph Series, Rand McNally, Chicago, 1967.

Evaluations based upon the above definition of evaluation yield data about gross total program effects and then only in retrospect. Such data are useful for making judgments about a project after it has run full cycle, but they certainly are not adequate to assist educators in the initial planning and in the actual carrying through of programs (Stufflebeam, 1969).[10]

The operational task for the educational system then, according to Dr. Stufflebeam, becomes one of devising strategies (other than blind reaction) for responding to both internal and external forces for change:

> What is required is a means for determining the nature and direction of these forces at any given time. This means must be the evaluation mechanism... The appropriate response to any assessment is one which improves the educational situation. Improvement implies alteration; it can only come through actions different from those that are currently being taken. Thus to improve education the educational decision-maker must identify alternative actions and choose that one or that combination giving the greatest probability of improved practice... The decision-making process is thus of greatest interest to the evaluator; it is in providing information to inform such choices that the evaluator relates most effectively to education.[11]

A schematic representation of the decision-making rationale in education is depicted in Figure 2.

Although almost any definition of evaluation one examines attempts to relate an emphasis on "the worth of something," program quality, measurement of, to describe and other similar phrases, the key element in an accurate definition of evaluation is decision-making.

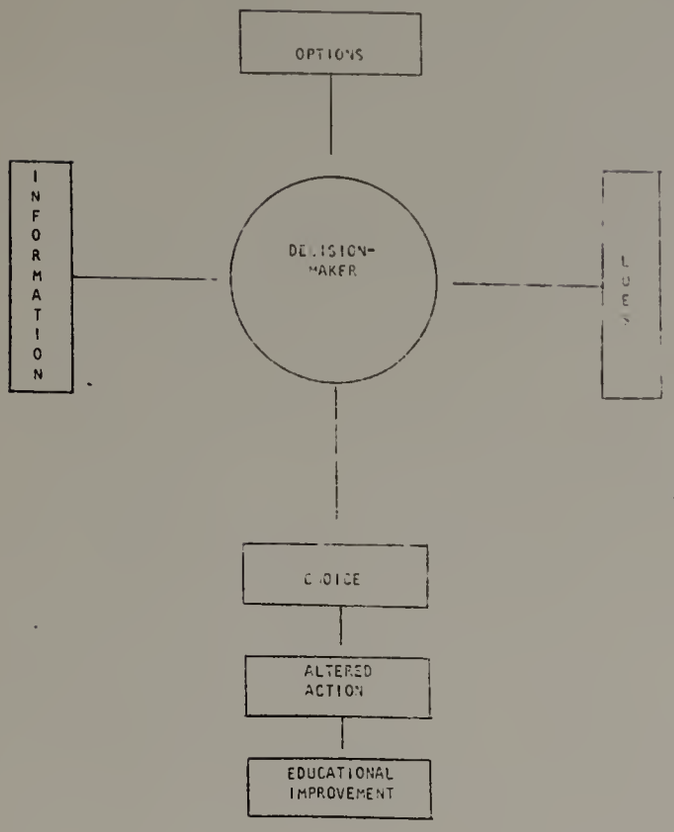
10 Stufflebeam, Daniel "Evaluation for Decision-Making," Improving Educational Assessment and An Inventory of Measures of Affective Behavior, Association for Supervision and Curriculum Development, Washington, D.C., 1969.

11 Stufflebeam, Daniel, Educational Evaluation and Decision-Making, PDK Commission, Ohio State University, 1970.

FIGURE 2

A SCHEMATIC OF THE DECISION-MAKING RATIONALE

AS A BASIS FOR EVALUATION



Both Gene Glass and Daniel Stufflebeam have recognized the need, not only to provide data about the strengths and weaknesses of a program after it was over, but also while it was on-going.

Stufflebeam (1969) states:

> Generally, evaluation means the provision of information through formal means, such as criteria, measurement, and statistics, to provide national bases for making judgments which are inherent in decision situations... Stated simply, evaluation is the science of providing information for decision-making.[12]

Once it has been established that educational evaluation is a continuous process for data-collection and feedback leading to programmatic decision-making, the next question becomes one of the

12 Stufflebeam, Daniel, Improving Educational Assessment and an Inventory of Measures of Affective Behavior, Association for Supervision and Curriculum Development, Washington, D.C., 1969.

most effective and efficient procedure for implementing this process. It is in dealing with the issue of procedure that we are introduced to educational research as opposed to educational evaluation. While being diametrically opposed in their approaches to assessing educational innovation, they do share a common ground. They both depend heavily on psychometrics or educational measurement to substantiate their findings and consequently both are concerned about how to secure accurate data.

This is exemplified by Campbell and Stanley (1968):

> In 1923, W. A. McCall published a book entitled How to Experiment in Education. In his preface he said: "There are excellent books and courses of instruction dealing with statistical manipulation of experimental data, but there is little help to be found on the methods of securing adequate and proper data to which to apply statistical procedure." This sentence remains true enough today... even with the introduction of Fischer's Statistical Methods for Research Workers (1925) the emphasis was still on elaborate statistical analysis rather than on aid in securing "adequate and proper data."[13]

There are even divergent points of view on what data is "adequate and proper" as Stake (1969) relates:

> Most of my colleagues think of evaluation as measurement of individual student progress, but I want to focus some evaluation on individual school progress, and some on individual nation progress. I think it is important to define evaluation differently than would most measurement specialists. 'As evaluators we should make a record of the following: what the author or teacher or school board intends to do, what is provided in the way of an environment, the transactions between the teacher and the learner, the student progress, the side effects, and last and most important, the merit and shortcoming seen by persons from divergent viewpoints.'[14]

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13 Campbell, Julian C. and Stanley, Donald T., Experimental and Quasi-Experimental Designs for Research, Rand McNally, Chicago, 1969.

14 Stake, Robert, "Objectives, Priorities and Other Judgment Data," Review of Educational Research, Volume 40, No. 2, AERA, Washington, D.C., 1969.

Stake went on to say that although evaluation almost always included some processing of subjective data, most of the writings on evaluation methodology do not mention procedures for gathering or analyzing such data.

Experimental Research Designs vs. Educational Evaluation

In rather dogmatic fashion Campbell and Stanley (1968) are committed to the experimental design in educational research as:

> ...the only means for settling disputes regarding educational practice, as the only way of verifying educational improvements and as the only way of establishing a cumulative tradition in which improvements can be introduced without the danger of a faddish discard of old wisdom in favor of inferior novelties.[15]

Even in their strong advocacy of experimentation, they are quick to emphasize that it is not new. A national and professional wave of enthusiasm dominated the field of educational experimentation during the Thorndike era and probably reached its apex during the late 1920's.

For a variety of reasons this enthusiasm gave way to apathy and rejection among practicing professionals and the lay public. With increasing school populations, more differential and complex curriculum and increasing numbers of educational innovations being attempted, experimental design became unwieldy. Along with this was an ever increasing awareness that in fact experimental design in education was an attempt to legitimize that profession in the eyes of other professions by adopting the so-called "scientific approach" to problem solving. As it was realized that human variables were more difficult to control in reality than in laboratory settings and that the

15 Campbell, Julian C. and Stanley, Donald, Experimental and Quasi-Experimental Designs for Research, Rand McNally, Chicago, 1969.

instruments for measuring human behavior and achievement were much less accurate than had been supposed, this technique for determining quality education fell into disfavor with educational practitioners.

On the surface, at first, the application of experimental design to evaluation problems seemed reasonable, since traditionally both experimental research and evaluation had been used to test hypotheses about the effects of treatment. However, Guba[16] and Stufflebeam[17] point out four distinct problems with this reasoning:

> First, the application of experimental design to evaluation problems conflicts with the principle that evaluation should facilitate the continual improvement of a program -- Experimental design prevents rather than promotes changes in the treatment because treatments cannot be altered in process if the data about differences between treatments are to be unequivocal. Thus, the treatment must accommodate the evaluation design rather than vice versa; and the experimental design type of evaluation prevents rather than promotes changes in treatment.
>
> Secondly, the experimental design type of evaluation is useful for making decisions after a project has run full cycle but almost useless as a device for making decisions during the planning and implementation of a project -- It provides data after the fact about the relative effectiveness of two or more treatments. Such data, however, are neither sufficiently specific and comprehensive nor are they provided at appropriate times to assist the decision-maker in determining what a project should accomplish, how it should be designed, or whether the project activities should be modified in process.
>
> A third problem with the experimental design of evaluation is that it is well suited to the antiseptic conditions of the laboratory but not the septic conditions of the classroom -- The potential confounding variables must be either controlled or eliminated through randomization if the study results are

16 Guba, Egon, "Methodological Strategies for Educational Change." The Conference on Strategies for Educational Change, Washington, D.C., Nov. 1965.

17 Stufflebeam, Daniel, Improving Educational Assessment and an Inventory of Measures of Affective Behavior, ASCD, Washington, D.C., 1969.

> to have internal validity. However, in the typical educational setting this is nearly impossible to achieve.
>
> Lastly, while internal validity may be gained through the control of extraneous variables, such an achievement is accomplished at the expense of external validity -- If the extraneous variables are tightly controlled, one can have much confidence in the findings pertaining to how an innovation operates in a controlled environment. However, such findings may not be at all generalizable to the real world where the so-called extraneous variables operate freely.

In contrast, the idea of evaluation for decision-making is a relatively new one. The germ of the concept can probably be traced back to the work of Rice, who in the 1890's sought empirical data to challenge the mechanical teaching and learning of the three R's. Rice felt that the amount of drill in subject areas like spelling was excessive, and that the time wasted there could better be spent working toward other objectives. Consequently, he devised a spelling test and administered it on a large scale in order to compare the achievement of pupils who had spent varying amounts of time on drill. On the basis of the test data, he concluded that the time spent on drill was the least important factor in determining the pupil's spelling skill (Furst, 1958).[18]

Like Rice's work, much of what could be described as early evaluation bore a striking resemblance to educational research. However, as time progressed the relationships between research and evaluation became more distinct. They began to emerge when research was sub-divided into "basic" and "applied." Applied research was based on a consideration for immediate utility, while basic research was concerned with the possible usefulness of specific new knowledge.

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18 Furst, Edward, Constructing Evaluation Instruments, Green and Co., New York, 1958.

Evaluation studies therefore differ from research studies in basically two ways: 1) they address themselves to questions of utility and 2) in the use of value questions that undergrid choices about what information or knowledge is sought.

Hemphill (1969) describes six ingredients most behavioral scientists agree make an "ideal" research study. They are:

1. Problem selection and definition is the responsibility of the individual doing the research.

2. Tentative answers (hypothesis) to the problem may be derived by deduction from theories or by induction from an organized body of knowledge.

3. Value judgments by the researcher are limited to those implicit in the selection of the problem.

4. Given the statement of the problem and the hypothesis, the research can be replicated.

5. The data to be collected are determined largely by the problem and the hypothesis.

6. Relevant variables can be controlled or manipulated, and systematic effects of other variables can be eliminated by randomization.[19]

He goes on to describe the characteristics of an evaluation which are almost totally the reverse of those outlined above:

1. The problem is almost completely determined by the situation in which the study is conducted. Many people may be involved in its definition and, because of its complexity, the problem initially is difficult to define.

2. Precise hypotheses usually cannot be generated; rather the task becomes one of testing generalizations from a variety of research studies, some of which are basically contradictory.

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19 Hemphill, John, Educational Evaluation: New Roles, New Means, National Society for the Study of Education, 68th Yearbook, Part II, Chicago, 1969.

There are many gaps which in the absence of verified knowledge must be filled by reliance on judgment and experience.

3. Value judgments are made explicit in the selection and the definition of the problem as well as in the development and implementation of the procedures of study.

4. The study is unique to a situation and seldom can be replicated, even approximately.

5. The data to be collected are heavily influenced, if not determined, by feasibility. Choices, when possible, reflect value judgments of decision-makers or of those who set policy. There are often large differences between data for which the collection is feasible and data which are of most value to the decision-makers.

6. Only superficial control of a multitude of variables important to interpretation of results is possible. Randomization to eliminate the systematic effects of these variables is extremely difficult or impractical to accomplish.

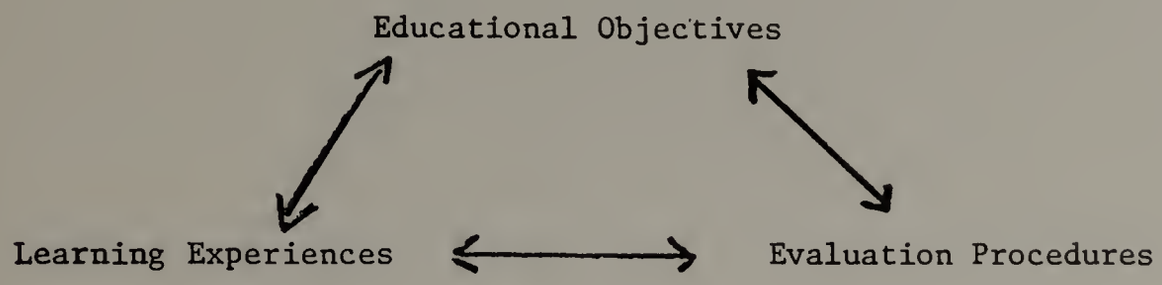
The principal difference between research and evaluation according to Stake and Denny (1969) is the degree to which the findings are generalizable beyond their application to a given product, program, or locale. The steps taken by a researcher to gain generalizability often tend to make his inquiries artificial or irrelevant in the eyes of the practitioner. The evaluator, on the other hand, sacrifices the opportunity to manipulate and control but gains relevance to the immediate situation. So, in fact, while both the researcher and evaluator work within the same inquiry model, they play different roles and appeal to different audiences.

Stake and Denny conclude their discussion of the differences between the researcher and evaluator by stating that:

> The researcher is concerned foremost with the discovery and building of principles -- lawful relationships with a high degree of generalizability over several instances of a class of problems. He seeks to develop rules (explanatory statements) about processes which govern common educational

> activities...The evaluator is a type of applied researcher who places special demands on the methods of inquiry. The evaluator is concerned with finding immediately relevant answers for decision-making and an obligation to deal directly with personal standards and subjective judgments.[20]

Furst (1958) suggests that evaluation is a basic task of the educator in the development of a curriculum or a plan of instruction. He portrays this schematically:



and explains this paradigm by emphasizing the continuous cyclical process of evaluation and the use of the data for decision-making:

> The objectives serve as the basis for developing both learning experiences and evaluation procedures. The learning experiences and evaluation procedures, help to clarify the objectives. Furthermore, situations used for instruction provide parallels for evaluation. The evaluation procedures provide evidence on the effectiveness of the learning experiences and ultimately on the attainability of the objectives themselves. There thus exists the possibility of interaction among these different factors, each having a potential influence on the others.[21]

The Demand for Accountability in Education

One of the most significant events impacting on the entire area of educational evaluation has been the growing demand for innovation.

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20 Stake, Robert and Denny, Terry, Educational Evaluation: New Roles, New Means, National Society for the Study of Education, 68th Yearbook, Part II, Chicago, 1969.

21 Furst, Edward, Constructing Evaluation Instruments, Green and Co., Inc., New York, 1958.

Changes are occurring in American society that are creating new conditions for education that require new types of evaluation. Some of these conditions are:

1. The rapid increase in the number of and type of technological devices in education such as television, tape recorders, computers, student response devices and holograms.
2. The current emphasis on improving the educational opportunities of disadvantaged children and the failure of standard achievement as measures of the ability of these students.
3. The new knowledge about education and the powerful effects of the student's home culture and community environment upon his learning.
4. The nature, direction and amount of peer-group influences in developing effective school programs.
5. The new directions in open concept education, open campus, individualized instruction, staff development cooperatives and child-centered classrooms.

Influential groups also helped to support and encourage change in educational evaluation. The statement of July, 1968, by the Research and Policy Committee of the Committee for Economic Development is a case in point.

> Innovation in education, whether it involves the use of new curriculum materials or new educational technology, has become essential if schools are to be genuinely effective in achieving their aims and goals...This means the development of principles and techniques for critically judging the worth of whatever the schools teach and the effectiveness and efficiency of their methods of instruction.

Yet another influence on educational evaluation, not to be taken lightly, has been the growing demand for accountability that has accompanied innovation. During the 1950's educators began assuring the public that, given the proper conditions, they would cure many of the ills plaguing public education at the time. All they needed, they insisted, was enough money to implement a number of basic reforms and innovations.

Among these were the lowering of pupil/teacher ratio, increasing the number of volumes in the library of every school, providing more audio-visual equipment and remediation specialists.

Beginning in the 1960's with the opening of the Space Race and Missile and Educational Gaps between the Soviet Union and the United States, millions of additional dollars from federal, state, and local governments were poured into the field of education. For example, Title I of the Elementary and Secondary Education Act of 1965, alone, authorized nearly $1 billion to be allotted to schools with a high concentration of children from poverty homes. During this period educational expenditures and school enrollments sky-rocketed. Student enrollments in public schools in twenty years nearly doubled -- from twenty-five to forty-five million. If the present rate of growth in per pupil expenditures persists, an additional $11 billion per year will be needed by 1980 to finance this nation's schools.

The American taxpayer was not ungenerous in his support of educators attempting to improve the quality of education. The citizen/taxpayer responded to the need for additional revenue by voting heavy tax increases on himself. School funds were raised at a rate almost three times faster than the growth of the national output.

It is, however, clearly evident today that the public in general feels it is not receiving its just desserts from American education. There are a number of reasons for this growing tide of hostility against education. The economy, gnawed at by continued inflation, fluctuating markets, loss of consumer confidence and rising unemployment (even among elite white collar workers), seems incapable of sustaining the fiscal efforts that were devoted to education in the sixties. Ninety per cent of the fiscal burden for supporting the cost of education falls on the shoulder of state and local government. Fifty-three per cent is carried by the local taxpayer, mostly in the form of property taxes. As a result, taxpayer rebellions are springing up across the country and the constitutionality of using local property taxes to support public education is being challenged in several states.[22]

Lindman (1971) states yet another reason for this public reaction:

> Traditionally the public has viewed teachers and school administrators as practicing professionals, and has placed a high degree of trust in the professional judgment of school personnel. That, however, was before collective bargaining and teacher strikes.
>
> It was not long before the public, conditioned to the fact that teachers had chosen to deal with their employers in the same way employees negotiated with large industrial concerns began to ask: "what do we get in return?"[23]

Student dissent and open revolt against the war in Southeast Asia and "The Establishment" in general, have led many to criticize educational institutions for failing to teach the proper moral values, respect for

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22 Wise, Arthur, "The California Doctrine, Saturday Review, November 20, 1971.

23 Lindman, Erick, "The Means and Ends of Accountability," Proceedings of the Conference on Educational Accountability, Educational Testing Services, Chicago, 1971.

law and order and perpetuation of our heritage and democratic traditions. Many of the schools of today do not resemble those attended by the vast number of adults in our society. They appear to some to be too lax, too progressive, too free, with little direction and a total lack of discipline and order.

Whatever the reasons for this derision of public education, educators are faced with the dilemma of how to react to this general reproachment. This in itself is a source of public hostility. Professional educators seem to have either little evidence of the success of their programs or a distinct inability to relay to the lay public, in understandable terms, data (subjective and objective) substantiating the value of existing educational programs.

As Edythe Gaines (1971) remarks:

> A good accountability system would free us from the stresses and strains inherent in trying to meet myriad, unspecified, often conflicting expectations. It would recognize not only that pupils are uniquely individual human beings but also that educators are, too...A good accountability system would, indeed, help to increase our professionalism, raise our profession to higher status, heal the wounds we've suffered in battles with those who should be and traditionally have been our allies, and bring us all enormous personal satisfaction and peace of mind.[24]

There can be little doubt that the Age of Educational Accountability is upon us and the most critical tool, at least for the present, in this age is evaluation.

The Weaknesses of Existing Evaluation Designs

Most educators share some common, practical experience with evaluation, though they may not have recognized it at the time.

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24 Gaines, Edythe, "The Future of Accountability," Proceedings of the Conference on Educational Accountability, Educational Testing Service, Chicago, 1971.

In the majority of instances, the evaluation mentioned to teachers evokes memories of some very stern, austere looking supervisor who entered the classroom with a clipboard and check list, twice a year, to observe and "evaluate" a teacher's performance in class. Some may remember how their effectiveness as educators was equated by the system in terms of how well their students did on a particular examination -- such as the New York Regents' Examination or the College Boards -- or by what per cent of their students went on to college. A few educators may have had the distinction of serving on evaluation teams created by regional professional associations to determine the level of effectiveness of local educational institutions in terms of facilities, resources, staff and curriculum or of particular innovative educational projects.

In some rare cases, some educators may even refer to the act of assessing a pupil's academic success at the end of an instructional unit or an academic term as an evaluation of pupil progress.[25]

None of the examples I have cited represents effective evaluation. Each of them has its own independent list of specific weaknesses such as data collection flaws, poor instrumentation and design. However, all these experiences, whether they relate to the evaluation of an individual teacher, an institution, or a student, share one thing in common with the majority of all other types of evaluation and each other. In all instances, the evaluation is terminal -- its concern is with what happened at the end of an activity.

Traditionally, evaluation has emphasized the meaning of the final product to see how it compared with other final products or with some set of pre-determined goals. While the end result is undoubtedly very important to assess the process which led to that result. Product evaluation

25 Barnes, Everett and Olivier, Maurice, "New Directions in Evaluation," an unpublished position paper, 1971.

is like a blind-folded man running through a maze -- if he reaches the end, he says he has succeeded, but in fact he doesn't know what he did, right or wrong, to get him there.

It is with this stress on the improvement of data collection instruments and continuous on-going program evaluation that several new models for providing decision-making data through educational evaluation, have emerged.

The concepts of evaluation have changed over the years in relation to such issues as who is to be evaluated, what is to be evaluated and how evaluations are to be made. These concepts have evolved along with changing concepts of who is to be educated and how people are to be educated and along with technical developments within evaluation itself. There is every reason to believe that such change will come about through a continuing integrative development of evaluation and educational practice.

EMERGING MODELS OF EDUCATIONAL EVALUATION

> We cannot measure national spirit by the Dow Jones average or national achievement by the gross national product. For the gross national product includes our pollution and advertising for cigarettes, and ambulances to clear our highways of carnage. It counts special tasks for our laws and jail for the people who break them. The gross national product includes the destruction of the redwoods, and the death of Lake Superior. It grows with the production of napalm and missiles and nuclear warheads.....
>
> Robert F. Kennedy[26]

An Overview of Several Evaluation Designs for Decision-Making

One of the oldest types of formal educational evaluation and the one most familiar to professional educators was actually a spin-off of an

26 Ross, Douglas, Robert F. Kennedy: Apostle of Change, Trident Publishers, New York, 1968.

attempt by education to gain "respectability" in the eyes of the already established elements in the academic community, especially in the area of sciences. Thus was born the field of educational research, patterned after the research designs of the various sciences and using as its basic tools such accepted concepts as the scientific method of research, the laboratory model and "experimental design."

The idea of experimental design was to have groups as identical as possible and to give one group the treatment, hoping to correct or improve the malady, while depriving the treatment from the other or "control" group. With experiments extending over a long period of time, this became practically an impossible task. Perhaps the most significant drawback, however, was that if at the end of this lengthy period the treatment was a success, then it was particularly unfortunate for the pupils who had been denied it; and if it were a failure, the opposite became true.

Campbell and Stanley (1963) suggest:

> During the period of its greatest activity, educational experimentation proceeded ineffectively with blunt tools and a one-variable-at-a-time approach to the research...educational researchers should be concerned therefore with the development of new multi-variate experiment techniques and receive a more thorough training in modern experimental statistics to help raise the quality of educational experimentation.[27]

However, even with the improvements suggested by Campbell and Stanley, it seems unlikely that this method of evaluation will experience a resurgence of popularity. The time frames for such experiments are too long

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27 Campbell, Julian and Stanley, Donald, Experimental and Quasi-Experimental Designs for Research, Rand McNally, Chicago, 1969.

in many cases, the variables too difficult to control, the high rate of nonconfirmation of a hypothesis leading to frustration and avoidance of the process, the growing movement of humanism.

The difficulties in employing this concept in education were many. First of all, it was difficult to find large groups exhibiting similar characteristics. Secondly, the control group had to be literally controlled, that is, no unusual outside factors (variables) could be allowed to influence in education; and finally, the failure of this model to provide the educational leader with the type of data needed to maintain, modify or terminate an on-going educational innovation.

Another attempt at improving educational evaluation emerged out of World War II. During that time of transition from a peace time to war time production, there emerged a need for massive, integrated, highly coordinated, efficient efforts in order to manufacture the ships, planes and armaments needed to carry on the war effort. After the war these production techniques (PERT) were continued and are still being employed in NASA's space exploration program.

Like many of the educational innovations we have today, the Program Evaluation Review Technique (PERT) made its first successful appearance in industry; and subsequently, attempts were then made to modify it for use in education. PERT is basically a project management tool.

Desmond Cook (1970) describes the primary source of skepticism among educators about the value of PERT to their profession:

> The applications of Project Management Techniques are most apparent in the area of hardware. Indeed, one of the problems surrounding the use of Project Management in education is that the examples often cited from the private sector experience deal heavily in hardware--construction of buildings, the development of machines, the production of physical items, etc.

> There is little argument among even the most skeptical educator that Project Management can be most helpful in defining, planning and controlling development efforts dealing with hardware.
>
> It is when the subject turns to software or non-physical, but equally real and significant matters, that the skepticism mounts.[28]

PERT utilizes four basic areas in evaluation of program performance. These areas are 1) Establishment of Project Objectives, 2) Development of Work Flow, 3) Development of Project Schedules, and 4) Cost Estimating and Budgeting.

These basic areas then are reduced to more specific activities such as time-cost analysis, gant flow charts, work breakdown structures, network development, estimated time of activity, etc. Through the use of charts showing the steps one must move through to reach various "milestones," a program manager can effectively monitor and evaluate several aspects of the program in terms of the required time, money, resources and personnel needed to reach the final goals. These techniques usually represent some form of network scheduling and PERT is perhaps the best known, although variations and elaborations are innumerable. What they are all basically designed to do is to provide a visual portrayal of the specific activities and events which will be involved in accomplishing the project's objective.

Cook (1970) describes the numerous advantages of the PERT technique as:

> First, it forces the project participants to simulate the project's operation, which smokes out many potential problems before

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28 Cook, Desmond, Program Evaluation and Review Technique Applications in Education, OE-12024, Cooperative Research Monograph No. 17, U.S. Government Printing Office, Washington, D.C., 1966.

> they actually are encountered. Second, it provides a quick and incisive means of reviewing the project as a whole, as well as major portions of it. Third, if it is cooperatively prepared, it represents a negotiated agreement among the various participants to do certain specific things, in specific ways and at specific times. Fourth and finally, once approved and implemented, the plan provides a built-in means for determining progress and problems.[29]

There are disadvantages to its use in educational evaluation. Foremost among them is the intensive in-service training needed to allow educators to function effectively and comfortably with PERT as a tool. Along with this is a de-training period to deal with educators' objections to this approach. Another disadvantage to education is its apparent emphasis on mechanistic rather than humanistic approach strategies and, lastly, that the applications of PERT are most apparent and effective in the area of hardware -- not the most essential realm in education.

In summary, if PERT's greatest advantage is that it provides this continuity to several simultaneous activities,then its weakness is the difficulty of translating the process into relevant, workable areas for professional educators dealing mainly with software (i.e., learning, service personal interaction) rather than hardware.

For those readers interested in a further explanation of the Program Evaluation and Review Technique, Figures 3-5 are included with paradigms and definition of PERT component functions.

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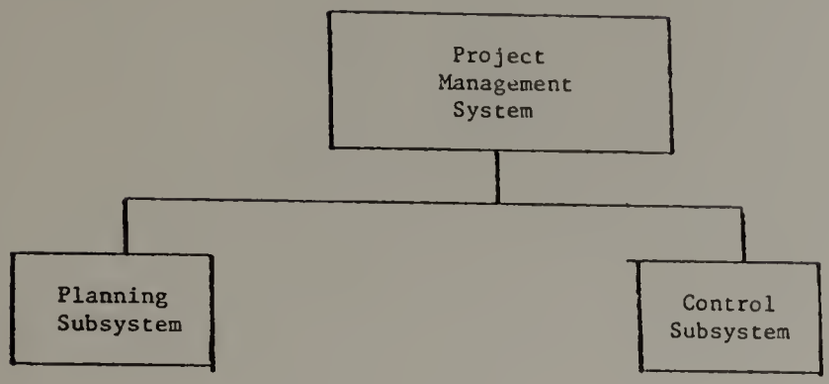
29 Cook, Desmond, Project Management and Educational Change, Ohio State University, 1970.

FIGURE 3

A PARADIGM OF A TOTAL PROJECT MANAGEMENT SYSTEM



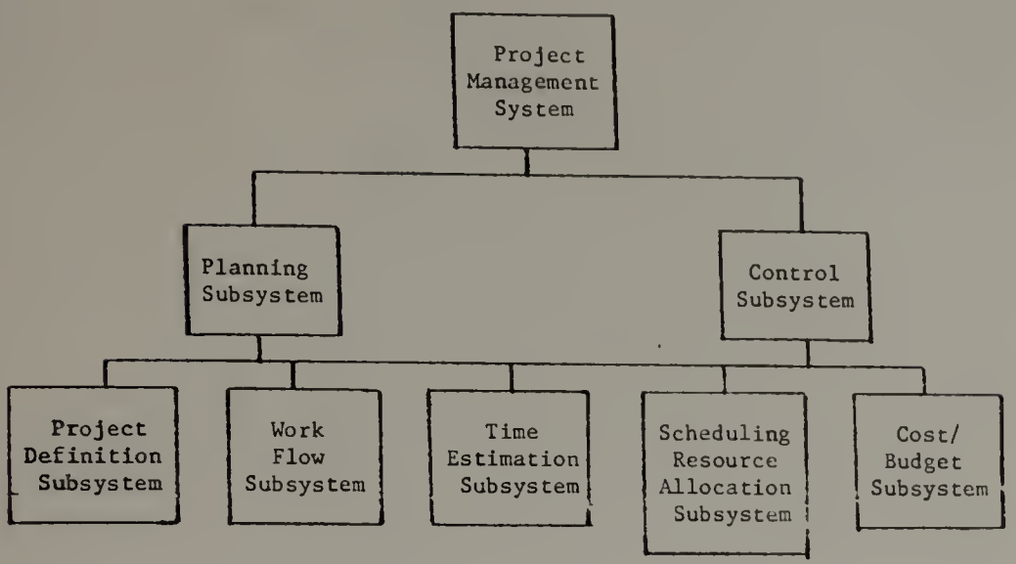
Total System Function: The function of the project management system is to develop a plan for use by a project which includes time, cost, and performance specifications and to provide a vehicle for monitoring and controlling project plan operation once project is initiated until completion or termination.

Accomplishment of the total system function is made by the identification and development of two major subsystems (Planning and Control) which have as their respective functions the development of a plan and control of the plan.

FIGURE 4

A PARADIGM OF THE PROJECT MANAGEMENT

PLANNING SUBSYSTEM



The Planning Subsystem Function: The function of the planning subsystem is to provide (a) a plan including schedule and budget for accomplishment of the prime project mission or objective along with a supporting objective coupled with (b) a data or information base which can be utilized in the control function to identify problem areas (i.e., deviations from plan).

Project Definition Subsystem: The function of the subsystem is to develop the boundaries of the project by establishing a hierarchial structure of the major and subordinate objectives reflecting work that has to be accomplished to reach the overall goal of the product and which are expressed as products or functions along with their performance specifications or criteria of accomplishment.

Work Flow or Plan Subsystem: The function of the work plan subsystem is to develop a graphical representation of the sequence of the tasks and events necessary to accomplish the objectives identified in the project definition subsystem taking into account necessary interrelationships and dependencies.

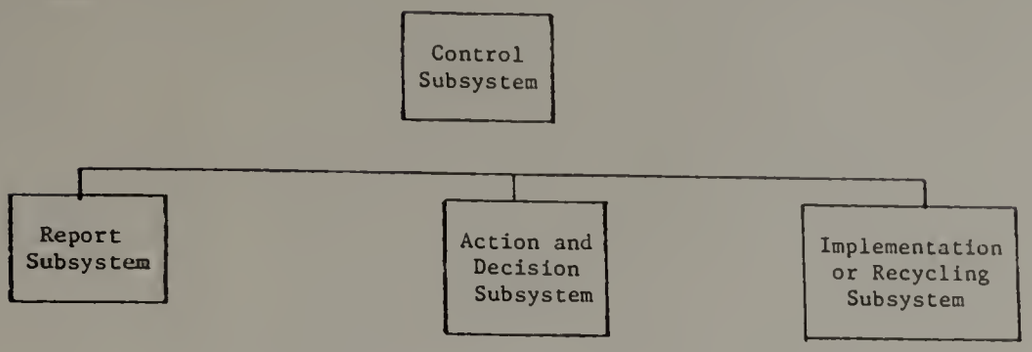
Time Estimation Subsystem: The function of the subsystem is to provide a managerial information regarding total project completion time plus time for the earliest and latest time for the initiation and completion of individual work tasks.

Scheduling/Resource Allocation Subsystem: The function of the subsystem is to schedule plans for the project by translating planned schedule derived from time estimation subsystem into specific calendar dates for the initiation and completion of work compatible with resource availability and other known or stated constraints.

Cost/Budget Estimation Subsystem: The function of the system is to generate a budget or future expenditure plan which provides for the necessary costs or resources needed to accomplish the project as outlined and established in prior subsystems and to provide a basis for future decisions as well as control of current expenditures.

FIGURE 5

A PARADIGM OF THE PROJECT MANAGEMENT CONTROL SUBSYSTEM



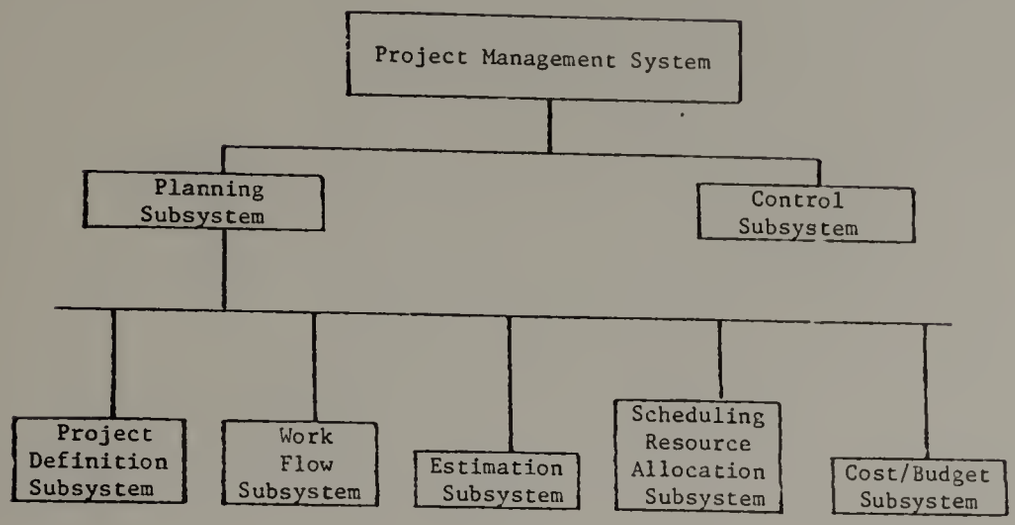
Control Subsystem Function: The function of the Control system is to provide management with timely, relevant, and valid information so that problems (i.e., deviations from plan) can be identified, alternative corrective solutions considered and decisions made, and decisions implemented by recycling project as needed.

Report Subsystem: The function of the system is to provide continuous accurate and rapid detailed and/or summary information for appropriate management levels which reflects current project status, highlights present and potential problems, in a form that is concise and clear.

Action and Decision System: The function of the system is to enable managers at various levels to develop actions and make those decisions which will resolve problems to correct deviations from original plans and/or to modify original plan as desired.

Implementation System: The function of the system is to provide a means of implementing management decisions, revising plans, and developing modified data/information base.

A paradigm representing the PERT system is represented by Cook (1968) as follows:[30]



Robert Stake, in "The Countenance of Educational Evaluation," Teachers College Record, April, 1967, presented yet another evaluation scheme commonly known as the "Stake Model."[31] In the so-called Stake model of evaluation, two types of evaluation are advocated. These are referred to as formative and summative evaluation. Formative evaluation could also be called informal, since it relies on such devices as evaluator observation, participant observers, interviews, daily logs and weekly rating scales.

30 Desmond, Cook, A Generalized Project Management System Model, Ohio State University, 1968.

31 Stake, Robert, "The Countenance of Educational Evaluation," Teachers College Record, Volume 68, No. 7, April, 1967.

This model provides the program manager with information (feedback) while the program is still in operation and can be modified. The summative or formal evaluation comes at the end of the project and uses a combination of more standardized measures stressing empirical data as well as the data compiled during the informal evaluation period to provide a final report.

Stake's Model also stresses the use of such techniques as unobtrusive measures and subjective/judgmental data which many evaluator/researchers avoid.

Stake (1969) went on to say:

> Success does not mean hitting a bulls-eye; success means coming acceptably close to a valued target. The responsibility of the evaluator is not only to find a good target-test and to try the discrepant shots; he should also learn what accuracy is appropriate. He should learn which people hold the goal in high regard and which do not. But often an evaluator reports gain-score data with decimal precision and no data at all on the suitability of the instrumental goals.[32]

The CIPP Evaluation Model

In 1968, Dr. Daniel Stufflebeam, from Ohio State University, introduced a new evaluation plan which focused on "evaluation as enlightenment for decision-making," and which also stressed as its basic philosophy that, "the purpose of evaluation is not to prove but to improve."[33] This particular evaluation scheme is commonly referred to as CIPP (Context, Input, Process, and Product) evaluation. Three basic steps are involved in this model:

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32 Stake, Robert, "Language, Rationality and Assessment," Improving Educational Assessment and an Inventory of Measures of Affective Behavior, ASCD, Washington, D.C., 1969.

33 Stufflebeam, Daniel, "Evaluation as Enlightenment for Decision-Making," ASCD, Sarasota, Florida, January, 1968.

1. The evaluator must delineate the activities that are to be evaluated. This includes decisions regarding the activities to be conducted, the information that will be needed to service those decisions and the policies that will govern the obtaining and providing of information.

2. He must obtain the needed information.

3. He must communicate this information to those who will make the decisions. The function of this process is to ensure that decisions are made which can result in defensible goals and in activities which are efficient and effective in meeting those goals.[34]

The real beauty in the CIPP method of evaluation is that it can be used in total or in part, depending on what stage the program to be evaluated is in. Context evaluation,for example, would be used when a project was first being contemplated or planned. Input evaluation would be used immediately after context for specific programming of activities. Process evaluation would be used continuously during the implementation of the project and Product evaluation would be used after a complete project cycle.

Dr. Stufflebeam (1968) has defined the various components of the CIPP evaluation model in relation to 1) objective, 2) method, and 3) relation to decision-making in Figure 6.

Each of these components that comprise CIPP demands closer examination.[35]

Context Evaluation

Three major objectives can be identified with context evaluation: 1) to define the environment where change is to occur; 2) to identify

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34 Stufflebeam, Daniel, Educational Evaluation and Decision-Making, Phi Delta Kappa Commission, Ohio State University, 1970.

35 Stufflebeam, Daniel, "Evaluation for Decision-Making," Improving Educational Assessment and an Inventory of Measures of Affective Behavior, ASCD, Washington, D.C., 1969.

FIGURE 6

A CLASSIFICATION SCHEME OF STRATEGIES

FOR EVALUATING EDUCATIONAL CHANGE

The CIPP Evaluation Model

A Classification Scheme of Strategies for Evaluating Educational Change

The Strategies

	Context Evaluation	Input Evaluation	Process Evaluation	Product Evaluation
OBJECTIVE	To define the operation context, to identify and assess needs in the context, and to identify and delineate problems underlying the needs.	To identify and assess system capabilities, available input strategies, and designs for implementing the strategies.	To identify or predict, in process, defects in the procedural design or its implementation, and to maintain a record of procedural events and activities.	To relate outcome information to objectives and to context, input, and process information.
METHOD	By describing individually and in relevant perspectives the major subsystems of the context; by comparing actual and intended inputs and outputs of the subsystems; and by analyzing possible causes of discrepancies between actualities and intentions.	By describing and analyzing available human and material resources, solution strategies, and procedural designs for relevance, feasibility and economy in the course of action to be taken.	By monitoring the activity's potential procedural barriers and remaining alert to unanticipated ones.	By defining operationally and measuring criteria associated with the objectives, by comparing these measurements with predetermined standards or comparative bases, and by interpreting the outcome in terms of recorded input and process information.
RELATION TO DECISION-MAKING IN THE CHANGE PROCESS	For deciding upon the setting to be served, the goals associated with meeting needs and the objectives associated with solving problems, i.e., for planning needed changes.	For selecting sources of support, solution strategies, and procedural designs, i.e., for programming change activities.	For implementing and refining the program design and procedure, i.e., for effecting process control.	For deciding to continue, terminate, modify or refocus a change activity, and for linking the activity to other major phases of the change process, i.e., for evolving change activities.

the environment's unmet needs and, 3) to identify the problems underlying these needs.

For example, the environment might be defined as the inner city elementary schools of a large metropolitan city. The identified unmet needs could be that the children's actual reading level is far below that of the rest of the city's. The next step in context evaluation would be for the schools to try to identify the reasons that such a need exists. Are students receiving adequate instruction; are materials appropriate for them; is there a language barrier; are the school's expectations unreasonable? These are all potential dilemmas which might prevent the achievement of desired goals.

The methods used to fulfill these three objectives usually begin with a conceptual analysis to identify and define the environmental domain to be served. This is followed with empirical or statistical analysis using techniques such as sample survey, demographic analysis and standardized testing to identify the needs in the domain. Finally, both the empirical and conceptual analysis, along with theory and authoritative opinion are used in judging what the basic problems are underlying each need.

Input Evaluation

The primary objective of input evaluation is to identify and assess what are the relevant capabilities of the agency trying to improve upon the stated unmet needs. The end product of input evaluation is a series of analyses of possible alternative solutions or methods (procedural designs), in terms of their potential costs and the benefits they might produce. Specifically these alternative solutions are examined in terms

of their resources, time and budget requirements; possible procedural barriers; the realities of overcoming the barriers; and the potential of the solution to meet the program goals.

Again, using the example of pupil reading levels in the inner city schools, possible solutions might be the reduction of class size, the use of materials more appropriate to the children's ethnic and cultural backgrounds, and the utilization of mobile reading clinics staffed with learning disabilities specialists. These solutions then raise such questions as: do we have the staff; the space; the time; the money? How will the community react to pupils using materials not used in other schools; how many children will a mobile lab be able to handle; what will it cost, etc.?

Essentially, input evaluation provides information for deciding whether outside assistance should be sought, what strategy should be employed--e.g., local available solutions or the development of new external ones--and what method or plan should be used for implementing the selected solution.

Methods for input evaluation are grievously lacking in education. The most common practices include parity committees, professional journals, literature searches, and the employment of consultants.

Decisions based upon input evaluation usually result in the specification of procedures, materials, facilities, schedule, staff requirements, and budgets to meet the identified need.

Process Evaluation

Process evaluation is needed to provide periodic feedback (information) to project managers once a design for action has been decided

upon and implemented. The objective of process evaluation is to detect or predict, during the time of actual implementation, defects in the implementation process and functions. Hopefully this would allow for identification and monitoring, on a continuous basis, the potential sources of failure in the project. Some potential sources of failure that could be monitored under this type of evaluation include: 1) interpersonal relationships among staff and students; 2) communication channels; 3) logistics; 4) understanding of the intent of the program by persons involved in and affected by it; 5) adequacy of resources, physical facilities, staff and time; 6) continuous pupil progress, etc.

As opposed to experimental design, process evaluation does not require control over assignment of pupils to treatments nor that the treatments even be held constant. Under process evaluation, the evaluator accepts the program as it is, monitors the total situation as best he can by focusing the most sensitive and non-intervening data collection devices he can on the most crucial aspects of the project. Steps to prevent failure are encouraged rather than left for implementation at the completion of the cycle.

Information is collected daily, organized systematically, analyzed periodically and reported as often as the project manager and his personnel require such information.

In this way the project decision-makers are not only provided with information needed for anticipating and overcoming procedural difficulties, but also with a record of process information to be used later for interpreting project outcomes.

Product Evaluation

Once the project has run full cycle, product evaluation is used to determine its effectiveness and how the outcome relates to the goals and objectives that were first established. In short we are measuring and interpreting outcomes.

The method used is one of defining and then measuring criteria directly associated with the objectives of the project and to compare these results to predetermined standards as well as to make rational interpretations of the outcome using recorded context, input and process information, i.e., management by objectives/behavioral objectives.

In the change process, product evaluation provides information for deciding to continue, terminate, modify or refocus an activity and for determining how that activity will be linked to other phases of the project.

Figure 7 presents the logical structure of evaluation designs common to all components of the CIPP evaluation model. Data retrieved from implementation of this design allows the decision-maker to select from alternatives regardless of the level of decision-making or implementation he is involved in.

Clearly, the quality of programs depends on the quality of decisions in and about the programs; the quality of decisions depends on the decision-maker's ability to identify the alternatives which comprise decision situations and to make sound judgments regarding those alternatives. The making of sound judgments requires timely access to up-to-date, reliable information pertaining to those alternatives and the availability of such information requires a systematic

FIGURE 7

THE LOGICAL STRUCTURE OF EVALUATION DESIGNS

FOR THE CIPP MODEL

A. *Focusing the Evaluation*

1. Identify the major level(s) of decision making to be served, i.e., local, state, and/or national.
2. For each level of decision making, project the decision situations to be served and describe each one in terms of its locus, focus, criticality, timing, and composition of alternatives.
3. Define criteria for each decision situation by specifying variables for measurement and standards for use in the judgment of alternatives.
4. Define policies within which the evaluation must operate.

B. *Collection of Information*

1. Specify the source of the information to be collected.
2. Specify the instruments and methods for collecting the needed information.
3. Specify the sampling procedure to be employed.
4. Specify the conditions and schedule for information collection.

C. *Organization of Information*

1. Provide a format for the information which is to be collected.
2. Designate a means for coding, organizing, storing, and retrieving information.

D. *Analysis of Information*

1. Select the analytical procedures to be employed.
2. Designate a means for performing the analysis.

E. *Reporting of Information*

1. Define the audiences for the evaluation reports.
2. Specify means for providing information to the audiences.
3. Specify the format for evaluation reports and/or reporting sessions.
4. Schedule the reporting of information.

F. *Administration of the Evaluation*

1. Summarize the evaluation schedule.
2. Define staff and resource requirements and plans for meeting these requirements.
3. Specify means for meeting policy requirements for conduct of the evaluation.
4. Evaluate the potential of the evaluation design for providing information which is valid, reliable, credible, timely, and pervasive.
5. Specify and schedule means for periodic updating of the evaluation design.
6. Provide a budget for the total evaluation program.

means to gather, collate and disseminate it to the appropriate audiences. The processes necessary for providing this capability make up the CIPP concept of evaluation.

The Emerging Profession of Educational Evaluation and the Training of Educational Evaluators

For many years, this nation's schools were recognized for their success. They were the representative and instrument of the American "Melting Pot" concept. In many respects this view of American schools has not changed radically. Though the immigrants and disenfranchised have had their ranks shrink considerably, the public school is still being asked to redress the social ills of the nation.

Provus (1971) describes some of the social responsibilities schools are being asked to assume:

> ...to involve the disenchanted, to eliminate longstanding prejudice toward racial and minority groups; to select and train future professionals, skilled workers and menials; to correct the effects of child rearing abuses; revitalize community agencies and service institutions; to re-educate parents in family building and maintenance skills as well as participatory democracy; and to secure continuous education of all Americans from infancy to the grave.[36]

Schools are presently innundated with new innovative programs in an attempt to meet these demands. The cost is staggering. However, unlike the past, schools are now coming under critical public scrutiny and the public is now asking about the effects of these new programs that are consuming so much of its tax dollar.

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36 Provus, Malcolm, Discrepancy Evaluation for Educational Program Improvement and Assessment, McCutchen Pub., Berkeley, California, 1971.

A direct result of this demand for accountability has been an equally vocal demand for trained, professional educational evaluators.

Glass (1969):

> Educational evaluation distinct from educational measurement has had a short history. Until recently practitioners and theorists in educational evaluation were almost solely trained in psychometrics; they approached educational evaluation problems with psychometric models, appropriate for individual assessment of human characteristics but with little concern for the practical and ethical problems of relationships of social knowledge to public policy.[37]

At present, training programs for evaluators are limited, with the exception of several doctoral programs conducted by various universities throughout the country. There are a few graduate programs that aim at training evaluation specialists.

Stake and Denny (1969) point out that:

> In general there is no single group of professionals trained to act as "comprehensive" experts on policy matters in education. But programs exist and there is a need to evaluate. At the present time social scientists from several fields, philosophers, journalists, ethical theorists, educational evaluators, and educational decision-makers, can be called upon to provide a piece of whatever special insight, concepts, or data they may have which will contribute to making more rational the decision on a "particular" program under consideration.[38]

In spite of the fact that evaluation is a desirable and often mandatory responsibility within funded programs, few schools of education offer relevant course work or supervised practical experience.

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37 Glass, Gene, The Evaluation of Instruction: Issues and Problems, Holt, Rinehart and Winston, New York, 1968.

38 New Means, National Society for the Study of Education, 68th Yearbook, Part II, Chicago, 1969.

The major source of educational evaluators is from in-service type training provided by other educational evaluators. There is a distinct need to provide some sort of training in evaluation to the local teacher, administrator, and perhaps even the public in general. Not with the idea of creating a new position in an already burgeoning educational bureaucracy but rather to create a professional enlightenment in terms of evaluation for those who will be most directly affected by it.

As Stake and Denny (1969) point out:

> ...mobilization of the appropriate skills (suited to educational evaluation) will require recruitment of already skilled persons from our own ranks...The concepts and techniques that will serve evaluation have roots in philosophy, sociology, anthropology, linguistics, history and economics as well as in psychology. Men from these disciplines have contributed often to educational practice...the responsibility of evaluation usually involves creating a better frame of reference for understanding educational programs. The contributions of men from allied fields are not the answers they have generated; but the perspectives they bring.[39]

Stake and Denny (1969) go on to propose the core of instruction and methods for selection of trainees:

> The core content of a program to train educational evaluators reveals a variety of needs. Doctoral level programs must be designed to produce evaluation theorists and consultants with competencies to cope with evaluation problems of great intellectual import and administrative size. Less extensive evaluation training programs are needed to provide a large number of persons who are able to gather useful evaluation information at the local level. Task-oriented experiences will be needed for teams of researchers drawn from a variety of disciplines and specialties, having heterogeneous backgrounds and different future roles. Experiences would be designed to broaden

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39 Stake, Robert and Denny, Terry, Educational Evaluation: New Roles, New Means, National Society for the Study of Education, 68th Yearbook, Part II, Chicago, 1969.

> the base from which educational evaluation problems are viewed. Prototypic instruments will have to be constructed for use with work problems and/or use in simulation exercises.[40]

Some work is being done on field-testing training programs for the preparation of local educational evaluators. Robert Filep reported on the development of a prototypic training program developed for the Educational Products Information Exchange Institute (EPIE), which utilized video taped feedback, sensitivity-training, simulation exercises and the exploration of non-reactive measures of teachers' views of educational materials.

Daniel Stufflebeam, at the Center for Education, Ohio State University, has operationalized a "Proposal to Design New Patterns for Training Research, Development, Demonstration/Dissemination and Evaluation Personnel in Education" which was funded by the Bureau of Research, Office of Education. The proposal is designed to train evaluators at both the masters and doctoral levels in the various aspects of the CIPP evaluation design. As the model now stands, it includes two project administration agencies, one university-based training agency, eight field-based training agencies, five support system agencies (to assist in program management, materials development, program evaluation, and dissemination), and eight cooperating agencies (those agencies which have expressed interest in sharing ideas and materials with the training consortium).

It is projected that a total of 1350 persons will be trained: 1010 in evaluation and 340 in innovation process; 780 in in-service

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40 Stake, Robert and Denny, Terry, Educational Evaluation: New Roles, New Means, National Society for the Study of Education, 68th Yearbook, Part II, Chicago, 1969.

and 570 in pre-service; 420 paraprofessionals, 660 masters and 270 Ph.D.'s.

Stake and Denny (1969) leave us with a very practical bit of advice regarding such training programs:

> In the selection and training of educational evaluation trainees, regardless of the depth and breadth of the training program and the academic qualifications of the candidates, consideration should be given to their tolerance for ambiguity and their ability to persevere in working on unpleasant tasks.[41]

Summary

In the present chapter some of the literature dealing with the development and definition of educational research and evaluation was reviewed. The purpose was not to discredit or idolize one method in place of the other, but rather to present an overview of some of the issues related to each; arrive at a basic understanding of the general concepts of research/evaluation; and attempt to indicate a trend in the profession.

Without a doubt all the research/evaluation strategies discussed, as well as spin-off strategies not broached, have a place in contributing to the assessment of the educational process. The writer, however, feels that the general direction in the field has been away from an experimental research design and towards a more practical continuous monitoring system capable of providing the educational decision-maker with the data necessary to select program/project alternatives.

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41 Stake, Robert and Denny, Terry, Educational Evaluation: New Roles, New Means, National Society for the Study of Education, 68th Yearbook, Part II, Chicago, 1969.

In the following chapter is presented a brief description of the major actors and background leading to the development of summer training institutes in educational research/evaluation at the University of New Hampshire. Also set forth are the objectives and training formats for each of the four training institutes.

CHAPTER III

A BRIEF DESCRIPTION OF THE BACKGROUND LEADING TO THE UNIVERSITY OF NEW HAMPSHIRE SUMMER TRAINING INSTITUTES

Introduction

The previous chapter attempted to provide an overview of literature related to educational research and evaluation in three general areas. These general categories were: 1) a historical perspective of the development of educational research and evaluation; 2) emerging trends in educational evaluation; and 3) training methodologies for educational researcher/evaluators.

It is the purpose of the present chapter to describe one such series of training programs, USOE, Title IV, Research Training Institutes, 1967-1970, held at the University of New Hampshire. The four areas to be examined include: 1) Major Actors and Incidents Leading to the Inception of the UNH training institutes; 2) Description of the Typical Institute Participant; 3) Institute Objectives over the Four Years of Operation; and 4) Description of the Training Format for Each Institute.

Major Actors and Incidents Leading to the Development of the UNH Institutes

The Bureau of Educational Research and Testing Services was created in 1965 by Dr. Roland Kimball, Chairman of the Department of Education at the University of New Hampshire, and Dr. Walter N. Durost, author of the Metropolitan Achievement Test Series and a nationally recognized test author and noted researcher in the development of stanines. As the title indicates, BERTS was to have two missions. The

primary mission was to provide to the schools of New Hampshire services related to selection of standardized tests and the processing, scoring and analysis of test results. Dr. Durost began to purchase and catalog a wide variety of standardized intelligence, achievement and personal inventory instruments that were then leased to the schools and returned to the Bureau for scoring. Following the scoring, the second mission of the Bureau emerged; that of providing a professional educational research arm to the Department of Education to increase its prestige, both in the academic community and the state through the publication of competent research studies. The data for these studies, most of which surrounded theories of learning or the social-psychological scientific methodology of Thorndike--i.e., variables centering on: achievement, aptitude, motivation, intelligence, teacher characteristics, reinforcement, discipline, social class or race--came from state school test data as well as the normative studies Dr. Durost was conducting for Harcourt, Brace and World on the Metropolitan and Stanford Achievement tests. In addition to these, other research publications came from Dr. Durost's work with the development and interpreting of stanines and their use in bi-variant analysis as descriptive correlators of such things as intelligence and achievement.*

Also in 1965 the New Hampshire State Department of Education received from USOE, under the Elementary and Secondary Education Act, Title I, a substantial grant to assist guidance personnel in working with disadvantaged pupils. After a series of discussions between the

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*A sample of one such bi-variant graph is included in the Appendix.

Department of Education, BERTS and N.H. State Department of Education personnel, it was concluded that this could best be accomplished by a standardized intelligence/achievement state-wide testing program. Consequently, from 1965 to 1972 the Bureau acted as the primary contractual agent for the scoring, processing and analysis of the state-wide testing programs. Initially (1965 to 1968), these programs were limited to grade levels eight and ten, but after 1968 they were expanded to include grades four, six, eight and ten. Tests were scored on the Bureau's Digital/Op-Scan mark-sense reader, transferred to magnetic tape and processed at the University's computation center. The results of each year's testing was stored on tape and programs were operational for retrieval of this base-line data for subsequent research studies. The accrual of this testing data played a major role in the selection by USOE of the University of New Hampshire for the HEW/USOE Title IV Training Institute Program and for the Bureau, in particular, acting as the administrative unit for the institutes. Only three other states, California, New York and Illinois, had followed a similar procedure,but for a number of technical reasons they were eliminated as sites. New Hampshire had both the hard and software for the training of educational researchers in the classical sense.

In 1966 Dr. Walter Durost resigned as director of BERTS after serious technical problems had arisen in the timely processing of the state-wide testing program. The participating school personnel were dissatisfied with both the turn-around time and the quality of the test processing being provided by the Bureau. Dr. Durost became the chief consultant to Harcourt, Brace and World on the Metropolitan Achievement test while continuing his research and writing at the

University of New Hampshire as an adjunct professor. His position as Bureau Director was filled by Dr. Gilbert Austin, who had just been appointed to the Department of Education faculty. Dr. Austin, like Dr. Durost, was oriented towards educational research with an emphasis on the application of computers to both research and schools. This orientation towards the expanded role of computers and data processing education was another influential factor in the design and development of the UNH training institutes since it reflected the philosophy of the Division of Research/USOE at the time.

In his new position, Dr. Austin concentrated on improving and expanding the Bureau's role in testing as well as creating a nucleus of people to expand computer services to the schools, i.e., computer-assisted instruction, grade reporting, school scheduling and computer-assisted guidance.

As Coordinator of State-Wide Testing, Dr. Austin attended a number of national testing conferences sponsored by Educational Testing Services in New York and Princeton and the American Educational Research Association. These conferences proved to be of major consequence to the institutes because they allowed Dr. Austin to perceive trends in educational research on a national basis, express his own activities and philosophy in the realm of research, and to establish a personal rapport with many of the leaders in the educational research movement who would later become institute consultants.

It was at an Educational Testing Service Conference for state test coordinators in Princeton, New Jersey, in 1967 that Dr. Austin first met and conversed with Dr. Richard Harbeck. Dr. Harbeck was then

Director of the Research Training Branch, Division of Research Training and Dissemination, U.S. Office of Education, Washington, D.C.

After explaining the services and activities of the Bureau, including the availability of state-wide base-line test data over a number of years and the available data processing hardware, Dr. Austin was encouraged by Dr. Harbeck to develop and submit a proposal to HEW/USOE, Research Training Branch, Title IV, for training educational researcher/evaluators through a six-week summer institute program. The first such institute was subsequently funded for the summer of 1967 and was entitled, "Researching Crucial Educational Issues in Northern New England."

Since 1967 the Bureau of Educational Research and Testing Services at the University of New Hampshire has been funded by the United States Office of Education with a series of four (4), six-week summer research/evaluation training institutes involving 113 participants. The titles of these four institutes were:

1967 - "Researching Crucial Educational Issues in Northern New England"

1968 - "Researching and Evaluating Educational Innovation in New England"

1969 - "The Challenge of Assessing Curriculum Changes in New England"

1970 - "Planning for Educational Decision-Making in the 70's"

The principal initiator of all the proposal designs for these institutes was Dr. Gilbert R. Austin, then Director of the Bureau.

The change in the institute titles over the four-year period is extremely interesting. It substantiates, as does the narrated change in institute objectives presented in Chapter IV, the trend indicated in the review of the literature in Chapter II; a movement away from classical educational research towards decision oriented evaluation. Note that originally it was "Researching" (1967); then "Researching and Evaluating" (1968); followed by "Assessing" (1969), with no reference to research and finally "Planning for Decision-Making" (1970), a direct allusion to Dr. Stufflebeam's Sarasota paper[1] on the role of evaluation in educational decision-making.

The Institute Participant

It is difficult to draw a description of the "typical" institute participant that is representative of the four training institutes. As Figure 1 indicates, there were a number of selection factor changes from year to year. Therefore, instead of one typical participant, the institutes of 1967 to 1968 have been clustered, as have 1969 to 1970, to produce two "typicals."

These typical institute participants are graphically portrayed in Figure 2.

The 1967 to 1968 participant was male, average age 40, came from New Hampshire (55 per cent) and, either held a Bachelor's degree (83 per cent) or held or was enrolled in a Master's program (17 per cent) and was involved in a school guidance/counselor function (67 per cent).

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1 Stufflebeam, Daniel, "Evaluation as Enlightenment for Decision-Making," Association for Supervision and Curriculum Development, January 19, 1968, Sarasota, Florida.

FIGURE 1

REQUIRED PARTICIPANT SELECTION FACTORS FOR EACH OF

THE FOUR UNH RESEARCH/EVALUATION TRAINING INSTITUTES

Institute Year	Professional Background	Degree	Geographic Area	Sex	Age
1967	Guidance or Administration	Bachelor's(Min.) in Master's Program	Northern New England (N.H., Vt., Me.)	No Requirement	No Requirement
1968	Guidance or Administration	Bachelor's(Min.) in Master's Program	New England	No Requirement	No Requirement
1969	Guidance, Curriculum or Administration	Bachelor's(Min.) in Master's Program	New England	No Requirement	No Requirement
1970	Curriculum Administration or Research/ Evaluation	Master's(Min.) Degree . Hold or in Doctoral Program	National*	No Requirement	No Requirement

*had to include 15 black participants -- see report on Black Orientation in Appendix.

FIGURE 2

GENERAL CHARACTERISTICS OF PARTICIPANTS ATTENDING

EACH OF THE FOUR UNH RESEARCH/EVALUATION

TRAINING INSTITUTES

Year of Institute & # of Participants	Professional* Background	Degree	Geographic Area	Sex	Average Age
1967 (30)	Guidance 72% Teacher/Admin. 20% State Dept./College 8%	B.A. 85% Master's or in a Program 15%	Northern New England N.H. 57% Vt. 30% Me. 13% Other 0%	92% Male	42
1968 (25)	Guidance 62% Teacher/Admin. 35% State Dept./College 5%	B.A. 80% Master's or in a Program 20%	New England N.H. 52% Vt. 12% Me. 24% Other 12%	90% Male	39
1969 (29)	Guidance 24% Teacher/Admin. 63% State Dept./College 13%	B.A. 67% Master's or in a Program 33%	New England N.H. 79% Vt. 7% Me. 7% Other 7%	90% Male	35
1970 (29)	Guidance 0% Teacher/Admin. 14% State Dept./College 86%	Master's 70% Doctorate or in a Program 30%	National N.H. 3% Vt. 0% Me. 0% Other 97%	80% Male	32

*See Appendix for "Participant Job Changes 1967-1970"

With the emphasis on state-wide testing and personnel capable of "action" research, this type of participant made sense in a traditional research institute. New Hampshire guidance personnel were normally the local coordinators of the state-wide testing program and were in a position to apply that data to local social-psychological research studies. These people also had at least a cursory knowledge of test and measurements along with some elementary statistics although, for the most part, they had no research design or computer/data processing experience. This identifiable need is reflected in the early institute objectives cited in Chapter IV. Geographically, the participants are predominantly from New Hampshire and northern New England, although this trend diminishes somewhat in 1968 (12 per cent).* The emphasis here was on stimulation of local research projects to increase the use of accrued test data and expand computer/data processing services through increased local demand, not on the training of functional educational research/evaluators from a professional standpoint.

The 1969 to 1970 participant was male, average age 33, came from outside northern New England (52 per cent) although the 1969 institute saw a trend back to New Hampshire personnel (79 per cent); and 51 per cent held a master's degree or were in a program, with 30 per cent holding a doctorate or in a doctoral program, and his job function was at the State Department or College (50 per cent) level.

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*See Figure 3, Geographical Distribution of Institute Participants 1967-1970.

FIGURE 3

GEOGRAPHICAL DISTRIBUTION OF INSTITUTE

PARTICIPANTS 1967-1970

	Northern N.H. 1967	Northern N.E. 1968	Northern N.E. 1969	National 1970	TOTAL
Connecticut		1		1	2
Florida				2	2
Georgia				2	2
Hawaii				1	1
Iowa				2	2
Louisiana				2	2
Maine	4	6	2	0	12
Massachusetts		2	3	3	8
Michigan				1	1
Mississippi				2	2
Montana				2	2
New Hampshire	16	13	22	1	52
North Carolina				1	1
Rhode Island				1	1
Siapan				1	1
South Carolina				1	1
Tennessee				3	3
Texas				2	2
Virginia				1	1
Vermont	10	3	2	0	15
	30	25	29	29	113

The 1969 to 1970 participants reflect a number of significant trends. For instance, the level of sophistication and experience as measured by advanced degrees is greater than for the 1967 to 1968 group. There is a distinct shift away from guidance personnel towards teachers--i.e., department heads and curriculum supervisors--and school administrators in 1969, probably due to a growing concern with curriculum development and the realization that guidance personnel were not the "change agents" in most school systems. The post-1968 period had also seen a growing emphasis on the works of Mager[2] and Walbesser[3] in the area of performance or behavioral objectives as they relate to curriculum development along with Guba and Stufflebeam's growing dissatisfaction with the inappropriateness of educational

2 Mager, Robert, Preparing Behavioral Objectives, Fearon Publishers, Pala Alto, California, 1962.

3 Walbesser, Henry, Constructing Behavioral Objectives, University of Maryland, 1969.

research's antiseptic conditions for providing educational alternatives. By 1970 the real impact of evaluation, especially as reflected by assessment guidelines for federally funded programs, had been felt in the institute objectives and State Department personnel along with college personnel--i.e., researchers, doctoral students, instructors--became the major focus of the institute. It is at this point that the first real attempt to train "professional" evaluators becomes an institute goal, though no long-term program was ever successfully developed or implemented.

Institute Objectives

Although the objectives for the four institutes as well as the instructional format/content were very similar, it is interesting to note just how similar they were. For the institutes that occurred in 1967 and 1968, the objectives were really goal statements and were listed more or less generally and not sub-divided into specific objectives as in later years.

FIGURE 4
PROPOSED OBJECTIVES FOR THE 1967 INSTITUTE:
"RESEARCHING CRUCIAL EDUCATIONAL ISSUES IN NORTHERN NEW ENGLAND"

- The development of a piece of personal research which has relevancy in the person's home school district or home state.
- The studies of methods of educational research with attention to statistical analyses by which the hypotheses are either accepted or rejected.
- The use of modern data processing equipment to facilitate the encoding and capturing of this research data.
- The identification of present research literature applicable to the research problems of the trainees' home districts.

From these goals the reader should make special note of the emphasis on traditional educational research with no reference to evalua-

tion; "personal research," as noted earlier, reflects the job function of this particular institute's participants as well as the type of data available for research studies; "methods of educational research" and "statistical analysis of hypotheses"; and finally, the use of "data processing" in relation to research. Since many of present concept of evaluation--i.e., Provost, Stufflebeam, Stake--were still in the developmental stages, it may be fair to surmise that these goals also reflected the philosophy of USOE, Division of Research Training, toward assessment of federal and state programs.

An examination of the training format later in this chapter will substantiate this indirectly by a perusal of institute consultants and texts.

The 1968 institute objectives (Figure 5) are still essentially goal statements and are basically the same as for the previous year with one exception. An objective on communication techniques has been included although the emphasis is on the translation and dissemination of research into language interpretable by the layman or educational practitioner and not on communication in the pure sense. The words evaluation and decision-making also appear for the first time, reflecting to a small degree the direction future institute objective will take as the emphasis begins to shift from research to evaluation.

FIGURE 5
PROPOSED OBJECTIVES FOR THE 1968 INSTITUTE:
"RESEARCHING AND EVALUATING EDUCATIONAL INNOVATION IN NEW ENGLAND"

- The study of the problem inherent in evaluating the particular educational problem with which the trainee is concerned.
- The study of major alternatives open to the educator in terms of educational resear h methodologies.
- The study of communication techniques applicable to the proper implementation of the decision-making process at various levels of the educational system.
- The use of modern data processing equipment to facilitate the encoding and utilization of research data.
- The reading of current literature with emphasis on the application of literature relevant to the research project with which the trainee is involved.

Many of the goal statements and specific objectives for the 1969 to 1970 institute overlap. For the sake of brevity, goals and objectives that were identical to both institutes, as well as any unique to a particular institute, have been listed in Figures 6 and 7.

The goals for the 1969 to 1970 institutes clearly reflect the change in the emphasis of the institutes from research to evaluation although there are lapses such as in Goals II, IV and V in Figure 6 where the reference is made to "Campbell and Stanley," "data processing to facilitate utilization of research data," and "literature relevant to the research project." More and more the evaluation models become more prevalent and familiar terms such as "change," "decision-making," "evaluation," "CIPP" and "PERT" begin to appear to emphasize the growing influence of evaluation.

FIGURE 6

COMMON AND UNIQUE GOALS FOR THE 1969 AND 1970

UNH SUMMER TRAINING INSTITUTES

Goals Common to the 1969 and 1970 Institutes

Goal I	The study of the problems inherent in evaluating the particular curriculum changes with which the trainee is concerned. The study of the problem of evaluation was approached by having the trainees identify, write, and evaluate objectives for instructional programs in the areas of curriculum change in which they were interested.
Goal II	The study of the major alternatives open to education in terms of educational research methodologies. For instance the experimental approach as typified by the work of Campbell and Stanley, or the context, input, process and product (CIPP) model as presented by Stufflebeam. In either approach the program evaluation and review technique (PERT), developed for education by Cook, will be advocated as the method of organizing the project.
Goal III	The study of communication techniques applicable to proper implementation of the decision-making process at various levels of the educational system.
Goal IV	The use of modern data processing equipment to facilitate the encoding and utilization of research data.
Goal V	The reading of current educational literature relevant to the research project with which the trainee is involved.

Goals Unique to the 1970 Institute

Goal VI	The study of the problems inherent in the management of an educational evaluation project.

The one goal unique to the 1970 Institute is Goal VI which refers specifically to the"management of an educational evaluation project," rather than local research projects as in 1967 and 1968. If the reader examines the training format described later in this chapter, he will also note that even though data processing and statistical analysis remain as goals and objectives during 1969 and 1970, they become optional and for all practical purposes are eliminated in 1970.

Similarly, although the objectives common to the 1969 to 1970 institutes reflect an emphasis on "research," actually the training format through texts and consultants shows the emphasis as really being on evaluation for decision-making. This is seen also in the expansion of Objective VI from systems analysis, CIPP and PERT in 1969 to include management information systems and PPBS (program, planning, budgeting systems) in 1970 although they were never formally presented.

FIGURE 7

COMMON AND UNIQUE OBJECTIVES FOR THE 1969 AND 1970

UNH SUMMER TRAINING INSTITUTES

Objectives Common to the 1969 and 1970 Institutes	
Objective I	a. Identify the problems associated with designing a good research evaluation.
	b. Construct a research study which reflects understanding of research design and measurement theory.
	c. Distinguish between interpretations which are in fact justified from the data and those which are not justified from the data.
	d. Demonstrate through the use of the systems approach the problems associated with developing, disseminating and adopting the results of educational research within an educational environment.
Objective II	a. Identify evaluative techniques which can be utilized to provide information for making decisions about curriculum change.
	b. Identify the objectives for a specific program in their area of interest.
	c. Distinguish between well-written and poorly-written objectives.
	d. Identify and construct performance objectives.
	e. To translate (when possible) into performance objectives the objectives stated in the curriculum guides presently used in their school system which are stated in non-verbal terms.
Objective III	a. Interpret the research findings of several journal articles.
	b. Demonstrate the competency to apply the findings of a research study to one's local school situation.
	c. Describe the problems associated with dissemination and adoption of the general kind of educational research findings to a local school system.

Objective IV	a.	Construct a simple computer program.
	b.	Identify the problems associated with designing an optically scanable document.
	c.	Demonstrate the ability to operate a remote terminal.
	d.	Name and describe the use of a variety of modern data processing equipment and its utilization in educational research.
Objective V	a.	To identify the major reference source for educational research literature.
	b.	Construct a bibliography in the area of the trainee's interest.
	c.	Distinguish the major components of a piece of well-written educational research.

Objectives Unique to the 1969 and 1970 Institutes

Objective VI	a.	Define systems analysis and the listing of the basic steps related to system analysis procedures.
	b.	Define the meaning of management information systems (MIS), list the major components of an educational information management system, and define the essential steps in the implementation of an MIS in actual practice.
	c.	Define program, planning, budgeting systems (PPBS) and list the component parts of the PPBS system.
	d.	Define program evaluation and review technique (PERT), list the basic elements of PERT and prepare a PERT network from a simulated problem situation.

An examination of the training format of these four institutes, including the consultants employed, proves equally interesting.

Institute Training Formats

A brief description of the schedules and format for each of the institutes follows:

1967 Summer Institute Schedule and Format

The institute was conducted daily from 8:30 a.m. to 4:00 p.m. for six weeks. The morning sessions dealing with methods and techniques of educational research and research problems in education were team taught by Dr. Gilbert Austin, Dr. Carl Cooper and Dr. Som Nath Ghei. Dr. Austin was the institute

director as well as director of the Bureau of Educational Research and Testing. Dr. Cooper was associated with the Department of Education and the University of New Hampshire counseling center and Dr. Ghei taught statistics in the University of New Hampshire Psychology Department.

Each afternoon from 1:00 p.m. to 4:00 p.m. was partially used for small group discussions and partially for instruction in the use of computers and computer language. The computer instruction was conducted by Mr. Estes in the University of New Hampshire Department of Mathematics.

1968 Summer Institute Schedule and Format

Once again this institute scheduled class from 8:30 a.m. to 4:00 p.m. with the afternoon being used for computer programming instructed by John Estes. The morning sessions were again principally conducted by Dr. Gilbert Austin who was assisted by Dr. Albert Elwell, Director of Research and Development at the Bureau. Figure 8 also lists the special lecturers for this institute.

FIGURE 8

GUEST LECTURERS; TOPICS AND SCHEDULES FOR THE

1968 UNH SUMMER INSTITUTE

July 9-10	Dr. Daniel Stufflebeam of Ohio State University, discussed the use of PERT.
July 17	Robert Hart, University of New Hampshire, made a presentation on the use of optical scanning equipment.
July 25	Miss Priscilla Hayward, Coordinator of Assessment of Title I, New York State Department of Education, spoke on the evaluation of Title I and Title III programs in New York.
July 29	Dr. Richard Neville spoke on the role of the supervisor in educational research.
July 30	Dr. John Cawley presented interpretations of test data.
August 1	Mr. James Carr, New Hampshire State Department of Education, discussed the state-wide testing program in New Hampshire.
August 3	Mr. Joseph Cannistraro, Guidance Counselor in Concord, New Hampshire, spoke on the use of stanines from test results in his school.
August 6	Mr. Stuart Pickard, New Hampshire State Department of Education, reviewed the use of the ERIC materials.
August 7	Mr. Richard Burrows, Acting Director of the University of New Hampshire Computation Center, use of remote terminals.

1969 Summer Institute Schedule and Format

The same format for this institute was followed in terms of time and principal personnel as in the two previous summer institutes. Donald Bailey, computer programmer for the Bureau, conducted the afternoon session on data processing.

The learning sequence was as follows:

First Week:	Dr. Austin - statistics and an intensive study of the construction of behavioral objectives.
Second Week:	Dr. Henry Walbesser, University of Maryland, thirty-seven tasks associated with constructing behavioral objectives.
Third Week:	Dr. Gilbert Austin - statistics and a study of Campbell and Stanley's experimental research designs.
Fourth Week:	Dr. Daniel Stufflebeam - use of the CIPP evaluation model.
Fifth Week:	Dr. Desmond Cook presented two days of study on the PERT system and Dr. John Cawley, University of Connecticut, made a one-day presentation on psychomotor disabilities.
Sixth Week:	Dr. Austin spoke on development, dissemination and adoption processes in education. He was joined by Dr. William Asher, Purdue University, for two days.

1970 Summer Institute Schedule and Format

The major changes in design for this final institute consisted of the elimination of the statistical portion of the program and the offering of computer programming to participants on an optional basis. Other than these changes, the program remained relatively the same as in the past:

First Week:	Dr. Desmond Cook - the use of PERT techniques in education.
Second and Third Weeks:	Dr. Henry Walbesser - construction of behavioral objectives and learning hierarchies.
Fourth and Fifth Weeks:	Dr. Daniel Stufflebeam, Dr. Egon Guba, Dr. Robert Hammond - the CIPP evaluation model.
Sixth Week:	Dr. William Asher and Dr. Daniel Heisey - the dissemination of educational innovations.

These institute formats and tables of consultants provide some interesting insights into how the institutes developed and, in some instances, deviated from the expressed goals and objectives. In the first two years (1967 to 1968) the training program clung fairly close to its stated goals. The emphasis was on research design, statistics and computer programming. Most of the instruction came from local university resources, people familiar with the Bureau and the state testing program. In 1968 ten consultants were introduced as guest lecturers. Most of these had some direct relationship to traditional educational research, data processing or guidance. The one exception was an inconspicuous individual named Daniel Stufflebeam from Ohio State University, who lectured on,of all things, PERT for two days.

During the next two years (1969 to 1970) the program emphasis shifts markedly. Computers and statistics become less important and are replaced with greater time commitments to a systems approach to evaluation. Stufflebeam presents CIPP for one week; Walbesser, behavioral objectives for one week; and Cook, PERT for one week in 1969--followed by Stufflebeam and Guba for two weeks in 1970, Walbesser for two weeks and Cook for one week. The implication is clear--evaluation has come of age.

The texts from these four institutes provide yet another indication of the shift from research to evaluation as the reader can note in Figure 9. By 1969 and 1970 the trend was toward Stufflebeam's CIPP model and behavioral objectives and away from the research design although remnants remained such as Gagne's, Conditions of Learning and Campbell and Stanley's Experimental & Quasi-Experimental Designs.

FIGURE 9

BASIC TEXTS USED IN THE FOUR SUMMER

RESEARCH/EVALUATION TRAINING INSTITUTES

1967	Entwisle, Doris, Auto-Primer in Computer Programming
	Ferguson, George, Statistical Analysis in Psychology and Education
	Krumboltz, J.D., Learning and the Educational Process
	Travers, Robert, An Introduction to Educational Research
1968	Ferguson, George, Statistical Analysis in Psychology and Education
	Travers, Robert, An Introduction to Educational Research
	Thatcher and Capato, Digital Computer Programming
1969 & 1970	Gagne, Robert, The Conditions of Learning
	Maeger, Robert, Preparing Instructional Objectives
	Walbesser, Henry, Constructing Behavioral Objectives
	Campbell, D. and Stanley, J., Experimental and Quasi-Experimental Designs for Research
	Stufflebeam, Daniel, Evaluation as Enlightenment for Decision-Making

Summary

The 1970 institute, because of its national scope and doctoral qualifications, for the first time drew a large number (30) of highly skilled professionals with a varied background relative to educational research and evaluation. H.E.W. also insisted that twelve (12) of the selected participants be southern Blacks. Dr. Austin included in the proposal an "orientation" for the Blacks alone, prior to the start of the institute. The rationale used for this program was to help "acculturate" the Blacks to society in a small New England

university town. The orientation itself was conducted by Dr. Sarah Curwood of the University of New Hampshire and a copy of her observations and findings is included in the Appendix. No elaboration will be made on these documents since they represent data gathered on only the 1970 institute.

It is a curious phenomenon that for four summers, training institutes were held emphasizing evaluation/research methodologies and technologies and yet so little was done to employ these same processes in determining the quality of those programs.

Internal evaluations were conducted by the institute staff during all four institutes. For the 1969/1970 institutes a test developed by Gene Glass on educational research was administered on a pre-post test basis and gain scores were computed. During 1970 an external evaluator was also employed to examine the institute. This evaluation team was composed of Dr. Tom Hastings, Dr. Terry Denny and Dr. James Wardrop from the University of Illinois' Center for Instructional Research and Curriculum Evaluation (CIRCE) at Urbana, Illinois.

This chapter was intended to provide the reader with the necessary background information regarding the 1) inception of the UNH institutes, 2) the characteristics of the participants, 3) the goals and objectives governing the operation of the institutes, and 4) the training format and schedules of each institute.

The ensuing chapter will describe the development of the instrument used to evaluate the effectiveness of these institutes as well as an explanation of the treatment of the data.

CHAPTER IV

METHODOLOGY OF THE STUDY

Introduction

In the preceding chapter an overview was made describing briefly four background areas around the development of the institute. These included: 1) Major Actors and Incidents Leading to the UNH Institute; 2) A Description of the Typical Institute Participant; 3) Institute Objectives; and 4) A Description of Each Institute's Training Format. It is the purpose of this chapter to: 1) Describe the Study Population; and 2) Elaborate on the Assessment and Analytical Procedures Used in Attempting to Assess the Effectiveness of the Four University of New Hampshire Summer Research/Evaluation Training Institutes.

Study Population

The study population for the present study consisted of four separate and distinct groups, each representing one of the summer training institutes. In total, 113 people participated in the institutes, and the assessment instrument for this study was mailed to 112, one participant being deceased. A description of the typical participant's characteristics is provided in Chapter III.

The number of participants by institute, as well as the per cent returning the assessment instrument, is presented in Figure 1.

FIGURE 1
NUMBER OF PARTICIPANTS BY INSTITUTE AND THEIR RESPONSE TO THE ASSESSMENT INSTRUMENT

Institute	No. of Participants	No. Returning Responses	% of Responses Returned
1967	29	14	48.3%
1968	25	9	36.0%
1969	29	21	72.4%
1970	29	23	79.3%
TOTAL	113	67	60 %

As is illustrated by this data, the more recent institute had a significantly higher per cent of responses. The overall response return of 67 (60%) for all four institutes is considered, for the purpose of this study, to be extremely good given the variables of job mobility and time. The study population and the respondents to the assessment instrument will be compared by geographic distribution and professional background for any major disparity. An examination of the study population by academic degree, sex, and age will also be made.

Figure 2 describes the geographical distribution of study respondents by state, while Figure 3 gives the same distribution for all institute participants. The 1970 institute was different from the preceding three in that it was national, rather than regional, in scope.

FIGURE 2
GEOGRAPHIC DISTRIBUTION BY STATE OF STUDY RESPONDENTS

	Year of Institute and Number of Participants Responding to the Study				
State	1967	1968	1969	State	1970
New Hampshire	8(57%)	9(56%)	18(85%)	Connecituct	1(4%)
Vermont	5(36%)	3(33%)	1(4%)	Florida	2(8%)
Maine	1(7%)	1(11%)	2(9%)	Georgia	1(4%)
Massachusetts	0 -	0 -	0 -	Hawaii	1(4%)
Connecticut	0 -	0 -	0 -	Iowa	1(4%)
				Louisiana	1(4%)
				Massachusetts	2(8%)
				Michigan	0 -
				Mississippi	2(8%)
				Montana	2(8%)
				New Hampshire	1(4%)
				North Carolina	1(4%)
				Rhode Island	1(4%)
				Saipan	1(4%)
				South Carolina	1(4%)
				Tennessee	3(13%)
				Texas	2(8%)
				Virginia	0 -
TOTALS	14	9	21		23

FIGURE 3
GEOGRAPHICAL DISTRIBUTION BY STATE OF INSTITUTE PARTICIPANTS

	Year of Institute and Number of Participants				
State	1967	1968	1969	State	1970
New Hampshire	16(53%)	13(52%)	22(76%)	Connecticut	1(3%)
Vermont	10(34%)	3(12%)	2(7%)	Florida	2(7%)
Maine	4(13%)	6(24%)	2(7%)	Georgia	2(7%)
Massachusetts	0 -	2(8%)	3(10%)	Hawaii	1(3%)
Connecticut	0 -	1(4%)	0 -	Iowa	2(7%)
				Louisiana	2(7%)
				Massachusetts	3(10%)
				Michigan	1(3%)
				Mississippi	2(7%)
				Montana	2(7%)
				New Hampshire	1(3%)
				North Carolina	1(3%)
				Rhode Island	1(3%)
				Saipan	1(3%)
				South Carolina	1(3%)
				Tennessee	3(10%)
				Texas	2(7%)
				Virginia	1(3%)
TOTALS	30	25	29		29

The guidelines of the original summer institute in 1967 targeted on the three northern New England states (Maine, New Hampshire and Vermont) with the predominant number of participants coming from New Hampshire (53 per cent) and through an arrangement between BERTS and faculty of the School of Education at the University of Vermont, from Vermont (34 per cent). In 1968 and 1969 when the institute became a New England region-wide program, New Hampshire continued to maintain a high percentage of participants (52 per cent and 76 per cent, respectively) while the positions available to Maine and Vermont were reduced and distributed among southern New England states (Massachusetts and Connecticut). when the institute's focus became national, New Hampshire's participant percentage was reduced to 3 per cent. As is reflected in Figure 3, the 1970 training program took on a truly national look with no one state dominating participation. Figure 2 illustrates that, of those participants who responded to the assessment instrument, the majority for 1967 to 1969 were from New Hampshire (57 per cent, 56 per cent and 85 per cent, respectively) and all were from the northern New England states. The 1970 distribution of respondents, again, reflects the national scope of the institute.

Another reason for the predominance of New Hampshire participants in the 1967 to 1969 institutes was discussed in Chapter III and is illustrated in Figure 4.

FIGURE 4
PROFESSIONAL BACKGROUND OF INSTITUTE PARTICIPANTS

Professional Background	Year of Institute and Number of Participants			
	1967-(30)	1968-(25)	1969-(29)	1970-(29)
Guidance	22(73%)	14(56%)	6(21%)	0(0%)
Teacher	2(7%)	2(8%)	9(31%)	4(13%)
Administration	4(13%)	6(24%)	10(34%)	3(10%)
State Department	2(7%)	1(4%)	3(10%)	13(44%)
College(Student/Faculty)	0 -	2(8%)	1(4%)	9(31%)

The 1967 to 1968 institutes, not only reflected a high percentage of New Hampshire participants, but these participants also came predominantly from a guidance background (73 per cent and 56 per cent, respectively).

There are two apparent reasons for this. One was the Bureau's already established relationship with many state guidance personnel who had acted as coordinators of state-wide testing;and, secondly, because the curriculum of the early institutes stressed local research studies, guidance personnel in particular had both the time/motivation and accumulated base-line test data to follow through on such activities. The year 1969 saw a trend away from guidance personnel (21 per cent) with an apparent increase in teachers--i.e., department heads/curriculum superivsors (31 per cent) and a steady growth in the numbers of administrators (34 per cent) and State Department (10 per cent) personnel. This is partially explained by the growing awareness in Washington, D.C., and among the UNH institute administrators, as a result of the work of Guba and Stufflebeam, that guidance personnel were not the

real "change agents" or "decision-makers" in the educational process. If effective change was to occur,then the results of research/evaluation studies must be placed in the hands of the group most responsible for change and selection of alternatives in the system and this was not the role of school guidance personnel.

By 1970 the systems approach to educational evaluation/decision-making--i.e., CIPP, PERT, behavioral objectives--was at its peak, and the shift in the background of institute participants is drastically different from 1967. There are now no guidance personnel involved in the training program; teacher/administrator participation has dropped to 13 per cent and 10 per cent, respectively, and the focus has become state department personnel (44 per cent) and college faculty and staff, mainly doctoral candidates, 31 per cent. This is indicative of the growing influence of evaluation, rather than research, to validate federal and state programs and the necessity of state department personnel to be trained in its concepts.

The professional background of the respondents to the assessment instrument is indicated in Figure 5.

FIGURE 5
PROFESSIONAL BACKGROUND OF RESPONDENTS TO THE STUDY

Years of Institute & No. of Participants Responsing to the Study				
Professional Background	1967(14)	1968(9)	1969(21)	1970(23)
Guidance	6(43%)	3(33%)	4(19%)	0 -
Teacher	2(14%)	0 -	8(38%)	4(17%)
Administration	4(29%)	5(55%)	6(29%)	3(13%)
State Department	2(14%)	0 -	3(14%)	7(31%)
College (Student/Faculty)	0 -	1(11%)	0 -	9(39%)

The above data indicates that although the professional background of the participants attending the institutes in 1967 to 1968 (Figure 4) was predominantly in the field of guidance, the professional backgrounds of the respondents to the assessment instrument for those years was mainly teacher/administrator (43 per cent-1967; 55 per cent-1968). The respondents from 1969 to 1970 follow fairly closely the professional background patterns of the participants for those two years with 44 per cent in 1969 coming from administration/state department backgrounds and 75 per cent in 1970 from professional backgrounds in either state department or college fields.

As Figure 6 indicates, the academic backgrounds and degrees of the participants continued to grow more advanced as the institutes progressed from 15 per cent with a master's degree or enrolled in a program and no doctoral candidates in 1967 to 70 per cent with master's degrees or enrolled in a program and 30 per cent with doctorates or enrolled in a program in 1970. This pattern may be traced to two major factors: first, the modification of the 1970 institute's enrollment criteria requiring the applicant to be either a doctoral candidate or hold a doctorate degree; and second, the national trend that, in general, views a master's degree as a "minimum credential" for employment in state department or school administrative positions together with the massive increase in doctoral degrees awarded in recent years. The trend in sex and age also shifted from 1967 to 1970 with 1967 being 92 per cent male with an average age of 42 to 80 per cent male and an average age of 32 in 1970.

FIGURE 6
ACADEMIC DEGREES HELD BY INSTITUTE PARTICIPANTS

Highest Degree Held	Years of Institute & Number of Participants			
	1967-(30)	1968-(25)	1969-(29)	1970-(29)
Bachelor's	70%	15%	5%	-
Bachelor's+	25%	76%	62%	-
Master's	4%	7%	25%	57%
Master's+	-	2%	8%	13%
Doctorate	-	-	-	30%

The requirement that 1970 institute participants have a doctorate or be enrolled in a program proved to be an unrealistic criterion for a six-week training institute of this type. The rationale for this decision was never documented, but it may be fair to assume that, given the national scope of the institute and the fact that it was the only research/evaluation training institute funded by HEW-USOE in 1970, the doctoral criterion would add prestige to the program and attract a more professionally sophisticated participant. Although the criterion was a minor handicap in selecting white institute participants, it proved to be a much more significant barrier in the recruitment and selection of the fifteen southern Black educators who were supposed to participate in the program.

Dr. Sarah Curwood, a sociology professor from Knoxville College, in her report on the Black institute participants and their orientation to the training program, cites many interesting insights into the problems associated with the "Black quota"

now prevalent in many federal programs. Because these insights could prove of value, not only for the planning of future research/evaluation institutes, but for many other programs involving minority representation, Dr. Curwood's report has been included in the Appendix of this study in its entirety.

The Appendix of this study also lists job changes of the participants responding to the assessment instrument. A perusal of this data by the reader might prove interesting; however, no attempt was made to analyze this data since there is no positive evidence that participation in the institute resulted in the subsequent shift in job position, if any, and a value judgment would have to be made to determine if that shift was positive or negative.

Summary

In the previous section was presented a description of the composition of the institute participants and the respondents to the assessment instrument, with particular focus on 1) geographic distribution and 2) professional background. From the data presented it appears that the two groups of respondents are not substantially different in terms of georgraphic distribution of institute participants but are different in the area of professional background, especially for the institutes of 1967 and 1968.

A description of all the institute participants, with no delineation for respondents only, was also given in the area of 1) academic degrees, 2) sex and 3) age.

Procedure for Determining the Design of the Assessment Instrument

Because of the diverse geographic distribution of the study population, as well as time and fiscal constraints, the principal assessment procedure for this study became a multifaceted assessment instrument developed at the Bureau of Educational Research and Testing Services at the University of New Hampshire.

Other data sources include 1) the CIRCE evaluation report for the 1970 institute, 2) on-site follow-up interviews done by a Black participant observer on Blacks attending the 1970 institute, 3) consultant comments, 4) logs maintained by institute participants, and 5) responses from members of the various institute staffs. Samples of these materials have been included in the Appendix of this study. Because none of these sources provides longitudinal data across institutes, it will not be treated in the same manner as that collected by the assessment instrument and analyzed in Chapter V. Instead, data from these sources will be used to supplement comments, conclusions and recommendations stated in Chapter VI, Summary Conclusions and Recommendations.

The term "multifaceted" in this instance, not only refers to the different types of questions used in the instrument--i.e., open-ended, closed, weighted scale--but also at an attempt to gather data for a number of divergent audiences and individuals. Among these are 1) Dr. Gilbert Austin, who developed the UNH institutes and administered three of them; 2) Dr. Albert Elwell, who was responsible for the administration of the 1970 institute; 3) Dr. John Egermier, Director of the Division of Research

Training, U.S. Office of Education, Washington, D.C.; and 4) the staff of the Bureau of Educational Research and Testing Services, who will be responsible for the development and administration of any future research/evaluation training institutes at the University of New Hampshire. Needless to say, the assessment interests of these parties are not polarized and therefore overlap occurs relative to the type of questions asked of past institute participants.

From the proposals written and submitted to HEW/USOE by Dr. Austin, a matrix was constructed using the goals and objectives of each of the four institutes. Goals and objectives common to a majority of the institute participants were thus selected and incorporated in the assessment instrument. The following common goals and objectives were identified:

- The development of a personal program/project of evaluation or research which has relevancy in the person's home environment.
- The study of major alternatives open to the educator in terms of educational evaluation/research methodologies--i.e., Campbell and Stanley, CIPP, PERT.
- The study of communication techniques applicable to proper implementation of the decision-making process at various levels of the educational system.
- The use of modern data processing equipment to facilitate the encoding and utilization of research data.
- The reading of current literature with an emphasis on the application of literature relevant to the evaluation/research project with which the trainee is involved.

Figure 7 identifies specific objectives from funded UNH institutes that were incorporated in the assessment instrument to assist in determining the relative effectiveness of these programs.

FIGURE 7
SPECIFIC OBJECTIVES COMMON TO ALL UNH INSTITUTES

- To develop and write behavioral objectives.
- To construct and identify learning hierarchies.
- To develop statistical skills needed in research.
- To develop skills in writing computer programs.
- To develop skills in operating computers and computer supportive hardware.

Dr. Elwell and the staff of BERTS felt that questions reflecting objectives described in Figure 8 should also be introduced into the assessment instrument.

FIGURE 8
OBJECTIVES OF THE 1970 INSTITUTE
DIRECTOR AND BUREAU STAFF

- To determine the value of participant interaction with a variety of audiences--i.e., consultants, BERTS staff, other participants.
- To determine the extent of the use made of instructional materials available from the institutes.
- To determine the need for "big name" consultants in such institutes.
- To determine the participant composition patterns for training institutes of this type.
- To determine the general strengths and weaknesses of such institutes as perceived by participants.
- To determine the willingness of participants to commit themselves to a series of such institutes leading to an advanced degree in research/evaluation.

The questions of interest to Dr. John Egermier's Division of Research and Training, HEW/USOE, were concerned more with the extent of the immediate impact of such institutes and are reflected in Figure 9.

FIGURE 9
CONCERNS OF THE DIVISION OF RESEARCH REGARDING
THE SUMMER TRAINING INSTITUTES

- To what extent have the summer institutes affected changes in participants job functions.
- To determine if institute participants continue to pursue research/evaluation programs and activities.
- To determine if institute experiences are disseminated by participants when they return to their positions.

The Relationship of Assessment Instrument Items to Stated Goals and Objectives

In an attempt to create a rationale for each of the items used in the assessment instrument, Figures 10 - 17 have been developed to illustrate the relationship of assessment instrument items to stated goals and objectives.

The first four questions presented in Figure 10 were asked to determine if 1) participants already had proposal writing skills before attending the institutes; 2) if there was an increased use in these skills after the institute; 3) if so, was there a particular area of program/project proposal writing that received more attention than others; and 4) were program/project proposals submitted as part of the institute experience implemental.

FIGURE 10
QUESTIONS RELATED TO THE OBJECTIVE:
"Developing a Personal Program/Project of Evaluation or Research"

1. How many programs/projects proposals did you initiate/write prior to attending your Institute? _____

2. How many programs/projects proposals did you initiate/write since attending your Institute? _____

3. Since attending the Institute have you written/initiated any of the following:

Proposals (Fed., State, Local) titles _____

_____

_____

Evaluations: _____

_____

_____

Research Studies: _____

_____

_____

5. What is the present status of the program/project/proposal you were required to submit as part of your Institute experience?

_____

_____

_____

			Extremely Important	Important	Minimally Important	Not Important at All	No Opinion Response
10 L	Knowledge of proposal writing skills acquired	a					

The last item, question 10 L, was one part of a thirteen-part Likert-type scale for soliciting responses from institute participants regarding the value of institute experiences while attending the institute and at their present job position.

As in Figure 10, questions 10 C-10 E were asked to determine changes in the institute participants' perceptions during and after the institute. In this case, specifically in the areas of project management, i.e., PERT, CIPP.

FIGURE 11
QUESTIONS RELATED TO THE OBJECTIVE:
"Alternatives Open to the Educator in Terms of Educational Evaluation/Research Methodologies"

			Extremely Important	Important	Minimally Important	Not Important at All	No Opinion Response
10 C	Understanding the various administrative approach to program/project management	a					
		b					
10 D	The skill acquired in utilizing the Program Evaluation Review Technique (PERT)	a					
		b					
10 E	The CIPP model of Evaluation (Context, Input, Process, Product)	a					
		b					

Questions 6 and 10 I-10 K were items to solicit data regarding institute perceptions of interactions with various groups during and after the institute and if these relationships or interactions were continued once the institute terminated.

FIGURE 12
QUESTIONS RELATED TO THE OBJECTIVES:
"Communication Techniques Applicable to Decision-Making and Participant Interactions"

6. Since your Institute experience have you been in contact with:

A)	Insitute Staff	YES	NO
B)	Institute Consultants	YES	NO
C)	Other Participants	YES	NO

If yes, please specify the context(s) in which this contact was made

_____

_____

_____

			Extremely Important	Important	Minimally Important	Not Important at All	No Opinion Response
10 I	Knowledge gained from interaction with fellow participants	a					
		b					
10 J	Knowledge gained from interaction with B.E.R.T.S. staff (exclusive of outside consultants)	a					
		b					
10 K	Knowledge gained from interaction with Institute consultants outside of the classroom	a					
		b					

Once again, the Likert-type scale items cited in Figure 13 are an attempt to gain an insight as to how participants perceived the value of program areas in 1) data processing (programming and hardware); 2) research literature; 3) behavioral objectives; 4) learning hierarchies; and 5) statistical skills, during and after the institute.

FIGURE 13
QUESTIONS RELATED TO THE OBJECTIVES:
"Modern Data Processing; Current Research Literature;
Behavioral Objectives; Learning Hierarchies and Statistical Skills"

			Extremely Important	Important	Minimally Important	Not Important at All	No Opinion Response
10 A	Developing and writing behavioral objectives	a					
		b					
10 B	The construction and identification of learning hierarchies	a					
		b					
10 F	The skills and practice required by writing computer programs	a					
		b					
10 G	The skills and practice acquired in operating computers and computer supportive hardware	a					
		b					
10 H	The statistical skills offered as an introductory base or general review of those needed in research	a					
		b					
10 M	Importance of readings in required texts as well as outside sources	a					
		b					

Data from question 9 would be used to determine if the materials in instructional packages developed for the institutes and distributed to the participants were being used by them either on the job or for in-service training purposes.

FIGURE 14
QUESTIONS RELATED TO THE OBJECTIVES:
"Extent of Use of Instructional Materials and Need for Big Name Consultants"

9. What use have you made of the instructional materials presented to you at your Institute?

_____

_____

14. Do you feel the use of "big name" consultants from large, outstanding universities at these Institutes is

- ☐ of extreme value
- ☐ of no significant value
- ☐ something that could be handled by other less well-known but comparable trained personnel
- ☐ no opinion

Question 14 related to the fact that many summer training institutes use "star" or "big name" consultants to attract participants and add credibility to the programs. The question was then one of whether this institute staffing approach, with its increased cost, was a necessity or not.

Data from questions 12 and 13 will be examined to determine if institute participants found their experience significant enough to commit themselves to a number of such programs and if these programs would be improved by selecting participants by job function, experience or expertise on a homogeneous or heterogeneous basis.

FIGURE 15
QUESTIONS RELATED TO THE OBJECTIVES:
"Composition Patterns of Institute Participants and Willingness to Attend Future Institutes"

12. Would you commit yourself to a number of such Institutes (6 weeks) to receive an advanced degree such as a Master's in Educational Research and/or Education?

☐ YES ☐ NO ☐ MAYBE

13. Participants to Institutes of this type should be grouped by experience, job function and expertise on a more

☐ Homogeneous basis ☐ Heterogeneous ☐ no opinion

Questions 15-17 were open-ended questions designed to allow institute participants to express their opinions on what future programs might look like as well as the relative strengths and weaknesses of past programs.

FIGURE 16
QUESTIONS RELATED TO THE OBJECTIVE:
"General Strengths and Weaknesses of the Institutes as Perceived by the Participants"

15. What are some of the changes you would make assuming you were conducting the Institute?

_____

_____

_____

16. What do you believe the greatest strengths of such Institutes are:

_____

_____

_____

17. What do you believe the greatest weaknesses of such Institutes are:

_____

_____

_____

Additional comment or personal opinion:

_____

_____

_____

Complete any statements on back.

The questions referred to in Figure 17 reflect mainly the interest of Dr. Egermier and HEW/USOE. They focus on whether participation in the institute leads to further professional training in research/evaluation, changes in job function toward research/evaluation roles for the participants and if the participants are called upon to train fellow workers in a "snow ball" effect, once they return from the institutes.

FIGURE 17
QUESTIONS RELATED TO THE OBJECTIVES:
"Changes in Job Function; Dissemination;
Continuation of Professional Development in
Research/Evaluation"

4. My job role and/or function since attending the Institute has changed from

_____to_____

7. Since attending the Institute have you been called on to conduct in-service training programs, workshops or simply give presentations in areas the Institute concentrated on?

YES NO NOT APPLICABLE (If yes, please specify the number, content & audience of such activities)

_____

_____

_____

8. Have you taken or been involved in courses, seminars, workshops, etc., since your Institute, related to educational research and evaluation?

YES NO

If yes, please specify date, title, place, etc.

_____

_____

_____

11. Do you feel that your job function or role has changed as a result of your participating in the Institute?

☐ very significantly ☐ significantly ☐ somewhat

☐ not at all ☐ don't know

Procedures for Questionnaire Distribution and Collection

One hundred and twelve (112) questionnaires were mailed from the Bureau of Educational Research and Testing Services to former participants in the four University of New Hampshire institutes. Since no up-date had been made on the addresses of former participants, the addresses from their institute application forms were used as the known mailing addresses. A total of sixty-seven (67) questionnaires were returned to the Bureau for a return rate of 60 per cent. No formal on-site visits or telephone follow-ups were used due to the wide distribution of the participants and fiscal constraints.

The Procedures Used in Processing and Analyzing the Data

Four basic procedures were used in treating the data. These included: 1) tabulation; 2) data transformation to per cent of responses, where applicable; 3) application of statistical tests, i.e., chi square, where appropriate; and 4) a narrative content analysis of data results with regard to cited goals and objectives.

The following "closed" questions* were analyzed simply by examining the number of responses and determining a mean or percentage (Figure 18):

---

* Narrative clarification statements were used to assist the encoding of responses.

FIGURE 18
CLOSED QUESTIONS FROM THE UNH SUMMER INSTITUTE
ASSESSMENT INSTRUMENT

1. How many programs/projects proposals did you initiate/write prior to attending your Institute? _____

2. How many programs/projects proposals did you initiate/write since attending your Institute? _____

6. Since your Institute experience have you been in contact with:

A) Institute Staff	YES	NO
B) Institute Consultants	YES	NO
C) Other Participants	YES	NO

If yes, please specify the context(s) in which this contact was made

_____

_____

7. Since attending the Institute have you been called on to conduct in-service training programs, workshops or simply give presentations in areas the Institute concentrated on?

YES NO NOT APPLICABLE (If yes, please specify the number, content & audience of such activities)

_____

_____

8. Have you taken or been involved in courses, seminars, workshops, etc., since your Institute, related to educational research and evaluation?

YES NO

If yes, please specify date, title, place, etc.

_____

_____

11. Do you feel that your job function or role has changed as a result of your participating in the Institute?

___ very significantly ___ significantly ___ somewhat

___ not at all ___ don't know

12. Would you commit yourself to a number of such institutes (6 weeks) to receive an advanced degree such as a Master's in Educational Research and/or Education?

___ YES ___ NO ___ MAYBE

13. Participants to Institutes of this type should be grouped by experience, job function and expertiese on a more

___ Homogeneous basis ___ Heterogeneous ___ no opinion

14. Do you feel the use of "big name" consultants from large, outstanding universities at these Institutes is

___ of extreme value
___ of no significant value
___ something that could be handled by other less well-known but comparable trained personnel
___ no opinion

The "Open-ended" questions identified in Figure 19 did not lend themselves particularly well to statistical treatment and so this data was treated with lists of responses or sample responses and dealt with in a narrative content analysis.

FIGURE 19
OPEN-ENDED QUESTIONS FROM THE UNH
SUMMER INSTITUTE ASSESSMENT INSTRUMENT

3. Since attending the Institute have you written/initiated any of the following:

Proposals (Fed., State, Local) titles _____

_____

_____

Evaluations: _____

_____

_____

Research Studies: _____

_____

_____

4. My job role and/or function, since attending the Institute has changed from

_____ to _____

5. What is the present status of the program/project/proposal you were required to submit as part of your Institute experience?

_____

_____

_____

9. What have you made of the instructional materials presented to you at your Institute?

_____

_____

_____

15. What are some of the changes you would make assuming you were conducting the Institute?

_____

_____

_____

16. What do you believe the greatest strengths of such Institutes are:

_____

_____

_____

17. What do you believe the greatest weaknesses of such Institutes are:

_____

_____

_____

Additional comment or personal opinion:

_____

_____

_____

Complete any statements on back.

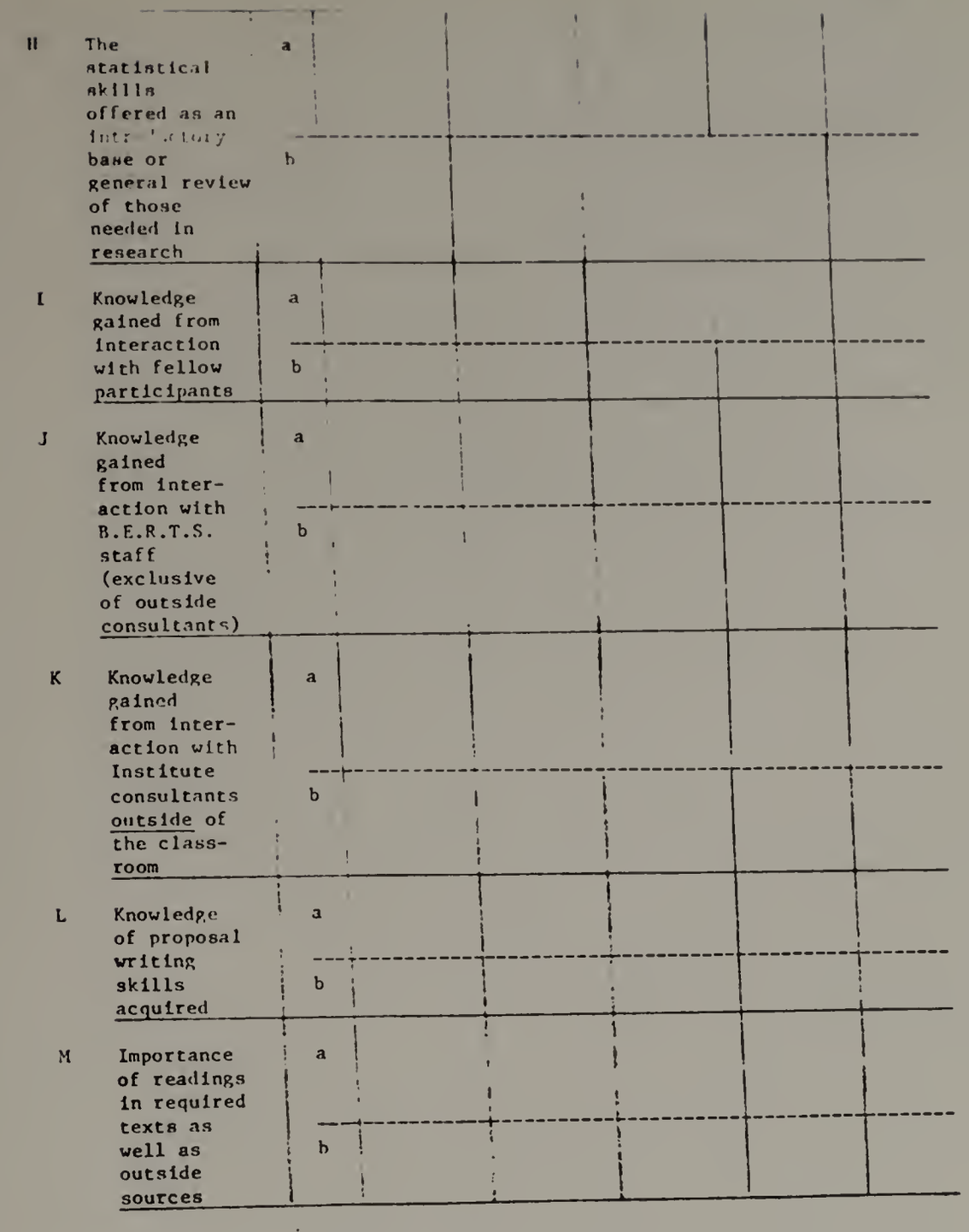
Three methods of analysis were used on the data generated by question 10 of the Likert-type scale illustrated in Figure 20.

The first method was to simply examine the number and per cent of times a response category was marked. These response categories ranged from "Extremely Important" to "Not Important at All." The categories of "Extremely Important" and "Important" in each section of question 10 were classed as indicative of a positive response, while the "Minimally Important" and "Not Important at All" categories were classed as a negative response. The "No Opinion" response indicated a neutral attitude toward the question or statement. Thus, in most cases the data were interpreted by combining the responses for categories "Extremely Important" and "Important" to determine attitudes in a positive direction, and the combining of "Minimally Important" and "Not Important at All" to determine attitudes in the negative direction. The responses for "No Opinion" were, for the most part, not considered in the interpretation of the results.

FIGURE 20
LIKERT-TYPE SCALE QUESTION FROM THE UNH
SUMMER INSTITUTE ASSESSMENT INSTRUMENT

10. Please rate the following Instructional areas, as presented in your Institute, ACCORDING TO THEIR IMPORTANCE: (a) while attending the Institute and (b) to your present job position.

			Extremely Important	Important	Minimally Important	Not Important at All	No Opinion Response
A	Developing and writing behavioral objectives	a					
		b					
B	The construction and identification of learning hierarchies	a					
		b					
C	Understanding the various administrative approach to program/project management	a					
		b					
D	The skill acquired in utilizing the Program Evaluation Review Technique (PERT)	a					
		b					
E	The CIPP model of Evaluation (context, Input, Process, Product)	a					
		b					
F	The skills and practice acquired by writing computer programs	a					
		b					
G	The skills and practice acquired in operating computers and computer supportive hardware	a					
		b					



The second method that was employed in the study was to determine a weighted mean for the group (during the institute and after the institute) for each section of question 10. The values assigned to the response categories were as follows: "Extremely Important" = 4; "Important" = 3; "No Opinion" = 2; "Minimally Important" = 1; and "Not Important at All" = 0. For this study, the use of the weighted means for question 10 was

mainly for determining differences in attitudes during and after the institutes.

The third method of analysis for the Likert-type scale items of question 10 is a grouping of the responses by institute participants' professional roles. That is, by Teachers--i.e., department heads, curriculum supervisors--School Administrators, State Department of Education Personnel, and College/Research Personnel--i.e., graduate students, faculty. The data was subjected to a statistical analysis using chi-square to test for the goodness of fit of the matrix modes. Since the cell frequencies were small, the Yates Correction for Continuity Factor was applied.

The purpose for grouping the participant responses by professional roles was primarily to determine whether any significant shifts had occurred by professional roles relative to the importance of the instructional areas, both during and after the institute. Additionally, the resultant data could also be utilized in planning for future institutes, to determine the adequacy of research and/or evaluation training programs geared specifically to selected roles within the educational profession.

For the sake of simplicity, statistical results emerging from the third method of analysis are presented in summary form. Illustrations of raw data for each component analysis, however, are included in the appendix for reference,as necessary by the reader.

Summary

The findings from the assessment instrument items and applied assessment procedures set forth in the previous section were presented in tables and analyzed.

The summary and conclusions made for the study were determined through an effort to synthesize the findings and look for evidence of patterns that may exist. In the following chapter the data generated from these procedures is presented in tables and analyzed.

CHAPTER V

FINDINGS OF THE FOLLOW-UP EVALUATION

Introduction

It is the purpose of this chapter to present the findings of the study regarding analyses of response to the Follow-Up Questionnaire administered to each participant in the 1967-1970 Institutes. The content and items of the Questionnaire have been described in the preceding chapter.

Major headings in this chapter reflect those objectives of the study detailed and illustrated in Figure 10 through Figure 17 of Chapter IV. Each of these headings is followed by a presentation of data analytic results and findings of inquiry items associated with each objective.

The alternative analytic strategies for the assessment of these data have been described in the preceding chapter. Both inferential and descriptive statistical procedures were used, and appropriate tests of statistical significance were applied to the examination of results.

Objective: "Developing a Personal Program/Project of Evaluation or Research"

Five items were included in the Questionnaire regarding the value of institute objectives keyed to the development of participants' proposal writing skills. These items are illustrated in Figure 10 of the preceding chapter.

Analyses of Pre- and Post-Institute Proposal Writing Activities. The level of pre- and post-institute proposal writing activities of each year's participants is summarized in Table 1:

TABLE 1
Pre- and Post-Institute
Proposal Writing Activities

Institute	Proposals/ Participants Ratio	Pre-Institute		Post-Institute		Difference
1967	Proposals	17	1.2	29	2.1	+0.9
	Participants	14		14		
1968	Proposals	12	1.3	33	3.7	+2.4
	Participants	9		9		
1969	Proposals	6	0.3	29	1.4	+1.1
	Participants	21		21		
1970	Proposals	48	2.1	36	1.6	-0.5
	Participants	23		23		
TOTAL	Proposals	83	1.2	127	1.9	+0.7
	Participants	67		67		

The above data indicate that, across the 1967-1970 Institutes, participants had in fact some degree of experience in proposal writing prior to their enrollment in Institute programs. The differential ratios of such experience, however, appear to reflect the varying pre-institute backgrounds, roles, and research and evaluation experience levels of the participants in each distinctive institute. The participant selection criteria for 1969 versus 1970, for example, would seem to explain the substantial difference in pre-institute proposal writing activities of these participants. This factor, together with an increasing national, state and local trend in research and evaluation activity requiring proposal writing efforts, would,

of course, account for the higher incidence of effort among 1970 participants than among enrollees in the earlier institutes.

The response pattern for post-institute proposal writing activity across the four-year period indicated a pre-to-post increase that might be attributed to the institute program. The obvious exception is the 1970 data that suggest a lower post-institute level of activity. Participants in the 1970 Institute were experienced writers prior to their enrollment because of their professional backgrounds, roles, and prior contact with many levels of research and evaluation efforts. These participants, moreover, had enrolled in the 1970 Institute in order to gain knowledge of program/project administration and implementation techniques rather than to gain proposal writing skills, per se. Also, it should be reiterated that proposal writing skills development did not emerge as a priority objective of the 1970 program nor did participants suggest a major need for such an element in this program.

A comparative analysis across institutes indicated the pre-post difference in proposal writing activity was not statistically significant ($t_{\bar{d}} = +1.65$; $df = 3$; $t_{.95} \geq 2.35$). However, if the "unique" 1970 participants are eliminated from the analysis, the resulting pre-post difference across the 1967-1969 institutes was indeed statistically significant ($t_{\bar{d}} = +3.12$; $df = 2$; $p > .05$). This latter finding would indicate that the objective of providing proposal writing skills development experiences does in fact substantially increase post-institute writing activity for those participants whose pre-institute writing experiences are limited or negligible. However, such a program is not effective when offered to experienced

writers or perhaps to participants whose roles do not include and/or require proposal writing as a major responsibility.

While analysis of Questionnaire Item No. 3 did not lend particularly well to statistical treatment, a content analysis of participant responses revealed that projects written/submitted subsequent to involvement in the institutes were oriented more towards state and local research and evaluation activities with primary emphasis on the latter thrust. This finding is understandable, of course, since most participants recruited for the institute programs held positions and/or responsibilities that were locally-oriented (i.e., personnel associated with local and state educational agencies).*

It was also noted that post-institute efforts reflected "action-type" research rather than formal research or evaluation studies. This observation too would be in line with the role characteristics data presented in Chapter IV. These data suggested that most participants' efforts centered on local program activities (e.g., analysis of local or statewide testing program data, concerns with evaluating the effectiveness of Title I and Title III programs, etc.). Few participants' activities required writing tasks focused upon the acquisition of funding support through concentrated proposal writing efforts, per se. Most often "proposals" for research or evaluation efforts were either not necessary, not required, or simply not pragmatic as an approach to the project or program under study.

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*This thesis would also hold for the majority of participants in the 1970 Institute as well as for those educators enrolled in the earlier programs.

Level of Implementation of Institute-Initiated Activities. The level of implementation of institute-initiated research and/or evaluation activities was felt to be a major index of the effectiveness of proposal writing skills development training as presented in the institute program. Responses to Item No. 5 of the Questionnaire are detailed in Table 2:

TABLE 2
Level of Implementation
of Institute-Initiated
Research and/or Evaluation Activities

Institute	Active/Implemented		Not Implemented	
1967*	3	25%	9	75%
1968	4	44%	5	56%
1969	9	43%	12	57%
1970	17	74%	6	26%
TOTAL	33	51%	32	49%

*Two participants did not respond to this item.

The participants in the four institutes, viewed collectively, pursued their research and/or evaluation activities initiated as project/program proposal exercises during involvement in the institute program. The majority of the proposals had, in fact, either been implemented or were in active status as reported in the follow-up evaluation questionnaire. The analyses of these data revealed that the level of implementation was statistically significant (chi-square = 8.57; df = 3; $p \geq .05$) for 1967-1970 participants as a whole but was not statistically significant if the 1970 participants were eliminated from the analysis (chi-square = 2.07; df = 2; chi square ≥ 6.0). An observation of significant affect, therefore,

can only be made if the extremely high (74%) "Active/Implemented" rate of the 1970 participants is acknowledged as the principal contribution to this finding.

It should also be of interest that a considerable number of those projects initiated during the institutes were funded as part of local elementary and/or secondary school ESEA Title I efforts. Several ESEA Title III projects were also developed including one rather large-scale effort funded in excess of $45,000. Two publications were reported by former institute participants--one in the Science Educator and one in the Florida Journal of Educational Research--which were direct products of the 1970 institute. Additionally, at least two doctoral dissertations being completed are also known outgrowths of involvement in the institute programs.

Value Attributed to Proposal Writing Skills Acquired. The final item included in the assessment of the proposal writing skills development objective was one of the thirteen rating-scale items of the so-called "Question 10" series described in Chapter IV. Briefly, the item was designed to solicit participants' estimates of the value they attributed to knowledge of proposal writing skills. Value ratings of skills acquired were requested of each participant on a "during institute" as well as "after institute" time frame, and comparative analyses of these ratings were conducted. Results of these tabulated responses and subsequent analysis are noted in Table 3. (Analyses of weighted mean scale scores are detailed in a separate section of this chapter.)

TABLE 3
Comparative Value Attributed to Knowledge of Proposal Writing Skills Acquired (During and After)

Groups	Comparison	Chi-Square	p
All Participants	During vs. After	0.55	N.S.[b]
School vs. Others[a]	During	1.82	N.S.[b]
School vs. Others[a]	After	0.08	N.S.[b]
Teachers and School Administrators	During vs. After	0.95	N.S.[b]
SDE and College/Research Personnel	During vs. After	0.03	N.S.[b]

[a]School refers to "teachers" and "school administrators." Others refers to "State Department of Education Personnel" (SDE) and "College/Research Personnel."

[b]Not statistically significant (N.S.).

During the institutes approximately 70 to 75 per cent of the trainees viewed proposal writing activities as an important to extremely important skill to be acquired during their stay at the institute. From their post-institute positions, during the years 1967 and 1968, approximately 60 per cent of the participants saw this skill as an important to extremely important function in their present jobs. This percentage moved up in years 1969 and 1970 where it approached 75 to 80 per cent of the response mode. These data seem to indicate that educators are moving, at least with these participants, in the area of grantsmanship. However, data in Table 3 indicate that when pre-/post-institute comparisons were made regarding the value attributed to knowledge of proposal writing skills acquired, none of the comparisons proved to be statistically significant for any identifiable group or for institute participants as a whole.

Objective: "Alternatives Open to the Educator in Terms of Educational Evaluation/Research Methodologies"

Three questionnaire items were designed to solicit participant responses regarding the institutes' efforts to provide educators with information and skills keyed to the appropriate use of alternative evaluation/research methodologies. These items were identified in Chapter IV, Figure 11.

Administrative Approaches to Program/Project Management. During the institutes 80 per cent of the participants viewed this instructional area as important to extremely important. It is interesting to note, however, that in 1968 only 55 per cent of the participants viewed this element of the objective as important to extremely important. On the other hand, 95 per cent of the participants in the 1970 institute saw it as important to extremely important. Since returning to their agencies and institutions, 70 per cent of the participants still viewed this instructional area as important to extremely important.

The extremely high value placed on this instructional objective was acknowledged by the pre-/post-institute comparisons noted in Table 4 below:

TABLE 4
Comparative Value Attributed to
Understanding Alternative Administrative Approaches

Groups	Comparison	Chi-Square	p
All Participants	During vs. After	1.00	N.S.
School vs. Others	During	0.03	N.S.
School vs. Others	After	0.05	N.S.
Teachers and School Administrators	During vs. After	0.82	N.S.
SDE and College/Research Personnel	During vs. After	0.61	N.S.

Simply stated, while most participants placed an important to extremely important value on the requisition of knowledge and skills regarding alternative administrative approaches, these data suggest that the institute reinforced this feeling, but not to such a degree as to effect significant change in participants' values. The lack of statistical significance in group comparisons indicates therefore that the institute program supported participants' convictions regarding the use of alternative methodologies as appropriate to the management needs of the particular program/project under study.

Skills Acquired in Utilizing the Program Evaluation and Review Technique. Approximately 60 per cent of the participants indicated during the institute that the instructional area regarding the development of PERT skills was important to extremely important. The remainder viewed it as minimally important and 3 per cent viewed it as not important. At the time of post-institute follow-up, approximately 48 per cent of the participants viewed the use of PERT as important to extremely important. Approximately 40 per cent saw it as being minimally important to

important. Major group differences were found to exist when comparisons of "during vs. after" perceptions were analyzed. These results are tabulated in Table 5. Two of the five group comparisons conducted, in fact, proved to reflect significant differences.

TABLE 5
Comparative Value Attributed to Skill Acquired in Utilizing the Program Evaluation Review Technique

Groups	Comparison	Chi-Square	p
All Participants	During vs. After	4.02	>.05
School vs. Others	During	0.15	N.S.
School vs. Others	After	0.10	N.S.
Teachers and School Administrators	During vs. After	4.34	>.05
SDE and College/Research Personnel	During vs. After	0.46	N.S.

The "during vs. after" analysis of all participants across the four institutes was statistically significant ($p > .05$). It appears, however, that the major contributors to this effect were teacher and school administrator participants, since this group's analysis also proved to be statistically significant beyond the $p > .05$ level. Neither the "school vs. others" nor the "State Department of Education and College/Research Personnel" group comparisons were found to be statistically significant.

Thus, the major change in value attributed to skills acquired in utilizing PERT was for those participants whose roles were in the areas of teaching and school administration. One might suggest that this finding was not too surprising since these groups would not likely have had prior contact with PERT while SDE and college/research personnel would probably have had at least minimal contact with the technique prior to attending the institute. If this latter assumption is appropriate, then it would not be expected that the resulting group comparisons for SDE and college/research personnel would necessarily be found to be statistically significant.

The important conclusion gained from the data in Table 5 is that PERT as a management technique was, in fact, disseminated to an "inexperienced" participant group that attached significant value to skills acquired in utilizing PERT as a result of institute participation. This acquired skill will, of course, have a positive effect on program/project management concerns emanating from local school systems in their future educational programming activities.

The CIPP Model of Evaluation. The response pattern indicates that during the first two institutes, participants were not really exposed to CIPP since it was just in its formative stages. For most of these participants, their knowledge relative to CIPP was acquired subsequent to the institute year through contacts with other participants, the BERTS staff, and professional conferences. In general, approximately 60 per cent of the 1967-1969 participants rated CIPP as important to minimally important. The "during institute" picture seems to change very markedly by 1970, however, when almost 90 per cent of the parti-

cipants viewed the instruction as important to extremely important. At the time the questionnaire was administered, the response pattern was similar to "during institute" responses. Again, the participants in earlier institutes clearly had not been definitively exposed to CIPP while the entire 1970 group of respondents viewed CIPP as important to extremely important.

TABLE 6
Comparative Value Attributed to the CIPP Model of Evaluation

Groups	Comparison	Chi-Square	p
All Participants	During vs. After	1.30	N.S.
School vs. Others	During	2.88	N.S.
School vs. Others	After	6.52	$>.02$
Teachers and School Administrators	During vs. After	1.11	N.S.
SDE and College/Research Personnel	During vs. After	0.00	N.S.

The comparative value attributed to the CIPP model of evaluation by identified participant groups is detailed in Table 6. The only analysis that was found to be significant was the after institute comparison of "school vs. others" ($p > .02$). An examination of the chi-square results for each group comparison clearly reveals that the significant instructional impact was on teachers and school administrators. It can also be noted from these data that the effect was a post-institute effect on these participants. Additional interpretations of the analyses reflect similarities with those observations previously noted for PERT instruction regarding teachers and school administrators.

Finally, it should be reiterated that a significant chi-square would not be expected for the "all participants" analysis since the minimal contact with CIPP and the developmental level of the model itself in pre-1970 institutes obviously would tend to diffuse the probability of a statistically significant finding.

Objective: "Communication Techniques Applicable to Decision-Making and Participant Interaction"

Four questionnaire items (see Figure 12, Chapter IV) were developed to assess the effectiveness of communications between participants, staff and consultants.

The degrees of participants' post-institute contact with staff, consultants and other participants are noted in Table 7.

TABLE 7
Degree of Post-Institute Contact with Staff, Consultants and Participants

st-Institute Participant Communication with:	Contact	1967	1968	1969	1970	TOTAL	Chi-Square	p
stitute Staff	YES	6 (42.9%)	8 (88.9%)	10 (47.6%)	13 (56.5%)	37 (52.2%)	5.99	N.S.
	NO	8 (57.1%)	1 (11.1%)	11 (52.4%)	10 (43.5%)	30 (40.8%)		
stitute Consultants	YES	4 (28.6%)	6 (66.7%)	7 (33.3%)	16 (69.6%)	33 (49.3%)	10.45	>.02
	NO	10 (71.4%)	3 (33.3%)	14 (66.7%)	7 (30.4%)	34 (50.7%)		
her Participants	YES	8 (57.1%)	7 (77.8%)	14 (66.7%)	22 (95.7%)	51 (76.1%)	8.96	>.05
	NO	6 (42.9%)	2 (22.2%)	7 (33.3%)	1 (4.3%)	16 (23.9%)		

The response data above suggest two rather clear patterns. One, the participants judged that the institute staff and, to a lesser degree, the consultants were indeed available to them in post-institute contacts. Two, the participants also indicate that post-institute interactions with other participants were greater than with either the institute staff or consultants.

This is, in fact, what one would generally tend to expect, especially when the participants in the 1967 and 1968 institutes are in geographical proximity to one another.

Three separate analyses were conducted to ascertain differences, if any, between degrees of participant contact with staff, consultants and fellow participants when viewed across institutes. The results of these analyses indicate that differential degrees of contact existed for participants-consultants ($p > .02$) and for participants-participants ($p > .05$). An examination of the data in Table 7 reveals marked year-by-year differences highlighted by 95.7 per cent participant-participant contact subsequent to the 1970 institute. Other notable fluctuation patterns are seen for participant-staff (i.e., 1968 and 1970 vs. 1967 and 1969), and the dramatic difference in participant-participant contact for the 1970 group in comparison with other institutes.

The second segment of questionnaire item No. 6 attempted to identify the specific context in which post-institute contacts were made. While the responses were varied, a series of representative comments are reproduced below without any attempt being made to interpret their meaning:

Institute Staff:

"Help with projects"
"Workshop at UNH"
"Research proposal"
"Feasibility of computerizing spelling program"
"AERA"

Institute Consultants:

"Writing of articles"
"Assisting me on my dissertation"
"AERA"

Other Participants:

"I hired him as my assistant principal"
"I traveled to Rome with one"
"In formulating proposals"
"Exchanged notes"
"Contacted seven others to see if they had results on their proposals"
"Research information and data on specific projects"
"Conducted evaluation workshops with participants"
"AERA"

Three items in the so-called "Question No. 10 Series" were focused upon an assessment of communications between participants, staff and consultants. Analyses of these items are included below in Tables 8-10.

Participant-Participant Communication. With regard to knowledge gained from interaction with fellow participants, from 70 to 80 per cent of the respondents indicated that such knowledge was important to extremely important during the institute. This would strongly suggest that future institutes should provide adequate amounts of time for both formal interaction (e.g., team learning) and informal interaction (e.g., appropriate social settings promoting participant dialog). The post-institute response pattern suggests that such interactions are important although not quite as marked as during institute ratings, with from 60 to 70 per cent of the participants viewing it as important to extremely important.

TABLE 8
Comparative Value Attributed to
Knowledge Gained from Interaction
with Fellow Participants

Groups	Comparison	Chi-Square	p
All Participants	During vs. After	0.59	N.S.
School vs. Others	During	1.25	N.S.
School vs. Others	After	0.74	N.S.
Teachers and School Administrators	During vs. After	0.01	N.S.
SDE and College/Research Personnel	During vs. After	0.14	N.S.

Results of comparative analyses for selected participant groups are noted in Table 8 above. None of the tests performed indicated a significant change from during vs. after institute participation or a significant difference between "school vs. others" for either during or after the institute. It must be remembered, however, that participants' expressions of importance had been rated between 70 to 80 per cent (during institute) and 60 to 70 per cent (after institute). Such high rating levels would leave little room for an increase in feelings of knowledge desired or acquired from fellow participants;and therefore, we would not expect a statistically significant change in the positive direction. Similarly, short of a generalized interpersonal conflict among participants (which never existed in any of the institutes), we would not expect a substantial decrease in the level of knowledge desired or gained from fellow participants that would be reflected by a statistically significant analytical result.

Knowledge Gained from Participant Interaction with Institute Staff. During the institutes, approximately 85 per cent of the participants rated interaction with staff as important to extremely important. Post-institute responses suggested that approximately 60 per cent of the participants viewed interaction with the staff as important to extremely important with regard to knowledge gained from such interaction. Results for during vs. after comparisons for participant groups are illustrated below in Table 9.

TABLE 9
Comparative Value Attributed to Knowledge Gained from Interaction with Institute Staff

Groups	Comparison	Chi-Square	p
All Participants	During vs. After	5.74	$>.02$
School vs. Others	During	0.34	N.S.
School vs. Others	After	6.69	$>.01$
Teachers and School Administrators	During vs. After	1.40	N.S.
SDE and College/Research Personnel	During vs. After	3.52	N.S.

Two of the comparative analyses were found to be statistically significant. The during vs. after comparison for "all participants" was significant at $p > .02$. An even greater difference ($p > .01$) was found to exist in the "school vs. others" group comparison on a post-institute basis. In the first instance, the chi-square results corroborate the percentage findings reported previously which indicated a substantial decrease from during-to-after institute rating in perceived value of knowledge gained from interaction with staff.

The second statistically significant result underscores the finding that for "others" (i.e., SDE and College/Research Personnel) the post-institute ratings dropped markedly while the ratings of school personnel remained relatively unchanged. This finding can be explained, at least in part, by the fact that the institute staff, as members of a university service bureau, had provided both prior to as well as after institute participation by teachers and school administrators. This interaction was in essence reinforced through the institute, while staff interaction with non-school personnel was basically limited to contact during the institute itself without the historical foundation or follow-up interaction necessary to establish or maintain participant-staff interaction subsequent to the institute.

Knowledge Gained from Out-of-Classroom Interaction with Institute Consultants. For the years 1967 and 1968 approximately 70 per cent of the institute participants saw this knowledge gained as being minimally important to important. During the 1969 and 1970 summer institutes, approximately 70 to 75 per cent of the trainees saw it as being important to extremely important. From their post-institute positions for the years 1967 and 1968, this interaction was viewed as minimally important to important by 40 to 45 per cent of the participants,and for the 1969 to 1970 institute participants, it was viewed as important to extremely important by approximately 60 to 70 per cent of the participants.

TABLE 10
Comparative Value Attributed to
Knowledge Gained from Out-of-Classroom
Interaction with Institute Consultants

Groups	Comparison	Chi-Square	p
All Participants	During vs. After	1.93	N.S.
School vs. Others	During	0.01	N.S.
School vs. Others	After	0.90	N.S.
Teachers and School Administrators	During vs. After	0.22	N.S.
SDE and College/Research Personnel	During vs. After	2.71	N.S.

As depicted in Table 10, none of the group comparisons proved to be statistically significant. Thus, while most participants viewed out-of-classroom interaction with consultants as a highly positive attribute during their institute training, this view was in essence maintained at the same level of importance after completion of the program.

Objective: "Modern Data Processing; Current Research Literatures; Behavioral Objectives; Learning Hierarchies; and Statistical Skills"

Evaluations of the value of objective components were assessed by six discrete items of the "Question No. 10 Series." These items are delineated in Figure 13 of the previous chapter.

Developing and Writing Behavioral Objectives. During the institute 78 per cent of the respondents viewed this instructional area as important to extremely important. From their present positions, 72 per cent of the respondents still viewed the instructional area as important to extremely important. Data regarding the comparative value attributed to developing and writing behavioral objectives is illustrated in Table 11.

TABLE 11
Comparative Value Attributed to Developing and Writing Behavioral Objectives

Groups	Comparison	Chi-Square	p
All Participants	During vs. After	0.29	N.S.
School vs. Others	During	0.14	N.S.
School vs. Others	After	1.36	N.S.
Teachers and School Administrators	During vs. After	0.14	N.S.
SDE and College/Research Personnel	During vs. After	0.16	N.S.

None of the group comparisons conducted were found to be statistically significant when analyzed on a "during vs. after" basis. Additionally, the "school vs. others" group comparison for both during and after the institute proper were likewise not to be statistically significant. These results simply support the percentage data presented above in underscoring the high value attributed to this instructional segment of the institute program.

Construction and Identification of Learning Hierarchies. During the institute in excess of 60 per cent of the participants viewed this instructional area as important to extremely important, but subsequent to the institute, only 39 per cent felt that the instructional area was important to extremely important. This pre- to post-institute response pattern indicates, first, a fair degree of ambivalence towards the importance of this instructional segment as viewed during the institute and, second, a significant decrease in the value of importance of this segment.

TABLE 12
Comparative Value Attributed to the Construction and Identification of Learning Hierarchies

Groups	Comparison	Chi-Square	p
All Participants	During vs. After	6.53	$>.02$
School vs. Others	During	0.02	N.S.
School vs. Others	After	1.59	N.S.
Teachers and School Administrators	During vs. After	1.64	N.S.
SDE and College/Research Personnel	During vs. After	4.71	$>.05$

An examination of the computed chi-square values for group comparisons detailed in Table 12 provides an index of during vs. after decrease in value placed on learning hierarchies. The statistical tests resulted in a significant difference ($p > .02$) for all participants and a slightly smaller, but statistically significant ($>.05$), decrease in value for SDE and College/Research Personnel. These results would also suggest that only school personnel felt this instructional segment had some practical

value to their instructional roles subsequent to their participation in the institute program.

Skills and Practice Acquired by Writing Computer Programs. The response pattern is quite interesting since it seems to indicate that over the years the ability to write computer programs has become less valuable. This perhaps also reflects the increasing number of computer programmers that are available to professional educators thereby lessening the need for the personal skill at writing computer programs. The participant responses range from a high of 56 per cent in 1967 to a low of 21 per cent in 1970 who viewed the instruction as important to extremely important. A similar response pattern is noted for post-institute responses but is even more pronounced (28 per cent in 1967 to 17 per cent in 1970).

This phenomenon was observed by the institute staff over the years and appropriate instructional modifications were initiated. For instance, in the 1970 program, computer programming instruction was made optional to the participants. Participants also noted an emerging shift towards the use of terminal devices which educators can use with much less comprehensive knowledge of the techniques of writing computer programs.

TABLE 13
Comparative Value Attributed to the Skills and Practice Acquired by Writing Computer Programs

Groups	Comparison	Chi-Square	p
All Participants	During vs After	2.77	N.S.
School vs. Others	During	0.61	N.S.
School vs. Others	After	0.01	N.S.
Teachers and School Administrators	During vs. After	2.40	N.S.
SDE and College/Research Personnel	During vs. After	0.12	N.S.

Results of the comparative analysis depicted in Table 13, however, do not indicate a statistically significant decrease in the value attributed to computer programming instruction. While the lack of a statistically significant decrease is in one sense somewhat surprising, this may be attributed to the initially low level of value together with the wide variation in value placed on this activity by participants. Also, the fact that the activity was required in the early institutes and revised to an optional status in 1970 would tend to cancel out group comparison effects when the activity is examined on an evaluative-years basis. The result of this final hypothesis would be a gradual rather than marked decrease in value that would not be sensitive to the type of statistical technique utilized in this analysis.

Skills and Practice Acquired by Operating Computers and Computer Supportive Hardware. During the institute in excess of 60 per cent of the institute participants saw this area as minimally important to important. From their present position, approximately 50 per cent of the participants judge it to be minimally important to important to have these skills in their present position. Again, these results perhaps reflect the same phenomena as discussed in the preceding sub-section.

TABLE 14
Comparative Value Attributed to the Skills and Practice Acquired by Operating Computers and Computer Supportive Hardware

Groups	Comparison	Chi-Square	p
All Participants	During vs. After	0.11	N.S.
School vs. Others	During	0.68	N.S.
School vs. Others	After	0.06	N.S.
Teachers and School Administrators	During vs. After	0.40	N.S.
SDE and College/Research Personnel	During vs. After	0.07	N.S.

Again, the results in Table 14 substantiate the percentage data above and explanations noted previously.

Introductory Statistical Skills Development/Review. During the 1967 and 1968 institutes, some 70 to 80 per cent of the participants saw instruction in introductory skills development/review as an important to extremely important skill. In 1969, 75 per cent of the participants saw it as minimally important to important;and in 1970, only approximately 40 per cent saw it as important, minimally important, or extremely important. At the time of the post-institute follow-up assessment, the response pattern was quite similar. Again,this skill is perceived by the participants over the four-year period as becoming less important. This would seem to be a similar finding to the responses noted on instruction regarding computer skills where the participants are feeling perhaps the need to have consultants or highly trained specialists capable and available to them in their program/project activities.

TABLE 15
Comparative Value Attributed to the Statistical Skills Offered

Groups	Comparison	Chi-Square	p
All Participants	During vs. After	0.01	N.S.
School vs. Others	During	2.96	N.S.
School vs. Others	After	0.00	N.S.
Teachers and School Administrators	During vs. After	0.00	N.S.
SDE and College/Research Personnel	During vs. After	0.78	N.S.

Results of the comparative analyses above suggest that while there are no statistically significant differences between

"during vs. after" values attributed to this introductory segment by participant group, the year-by-year decrease in perceived value underscores the national trend noted in the percentage data presented above. This trend strongly supports the need to develop programs for training specialists in such areas as computer programming and systems, statistics, etc., as support personnel to the management needs of educational evaluation project/program staff.

Importance of Readings in Required Texts and Other Sources. Rather consistently, 70 to 80 per cent of the participants viewed this as being minimally important to important as an institute activity. There is, however, some pattern of an increasing perception of this activity as being extremely important in later institutes, 1969 and 1970. The post-institute response pattern here was similar. Approximately 70 to 80 per cent of the participants in their present positions view this as minimally important to important.

The evaluative data would seem to indicate two major attributes. First, program/project management and evaluation personnel appear to realize the increasing importance of surveying relevant literature as a prerequisite to activities ranging from proposal development to the report and dissemination requirements associated with most Federal and State-supported programs/projects. A second and perhaps more important factor is that these data would tend to reflect the increasing availability of information relevant to educational programming.

TABLE 16
Comparative Value Attributed to the Importance of Reading in Required Texts and Other Sources

Groups	Comparison	Chi-Square	p
All Participants	During vs. After	0.19	N.S.
School vs. Others	During	0.01	N.S.
School vs. Others	After	0.29	N.S.
Teachers and School Administrators	During vs. After	0.00	N.S.
SDE and College/Research Personnel	During vs. After	0.14	N.S.

Results of the comparative analyses noted in Table 16, while not statistically significant, support the percentage data previously reported which clearly suggested that participants viewed this instructional activity as a beneficial component of the program both during and subsequent to the institute.

Objective: "Extent of the Use of Instructional Materials and Need for 'Big Name' Consultants"

Two items were included in the follow-up questionnaire to assess the utilization of instructional materials used in the institute and to assess the value of employing "big name" educators as instructional personnel.

Use of Instructional Materials. The instructional materials of the programs were used in a wide range of post-institute settings. A representative list of responses follows:

1. They tended to be used as references and, particularly, to help others learn some of the mysteries of writing proposals.

2. They were used specifically as personal references in more advanced classes taken later in graduate work.

3. The materials were used in conducting teacher workshops. Specific mention was made on the use of PERT and the establishing of behavioral objectives for curriculum revisions that were being planned.

4. The CIPP evaluation model has been commonly discussed in a variety of workshops and teacher evaluation. seminars and presentations made to a number of local administrative groups interested in upgrading their evaluation skills.

5. And, of course, for some, the materials have been placed in "permanent files."

Use of "Big Name" Consultants. Participants were asked if they felt the use of "big name" consultants from large, outstanding universities as instructors at these institutes was of extreme value or something that could be handled by other less well-known but comparably trained personnel.

For 1967 and 1968 the majority of the participants responding felt that it could be handled as effectively by less well-known people. Beginning in 1969 there seemed to be a rather marked switch in opinion so that by 1970 a majority of the respondents, in fact, felt that the use of important consultants from large, outstanding universities was of extreme value.

TABLE 17-A
Comparative Value Attributed to
Use of "Big Name" Consultants
by Participants at Each Institute

Year	Extreme Value	Handled by Less Well-Known
1967	5 (35.7%)	9 (64.3%)
1968[a]	2 (28.6%)	5 (71.4%)
1969[b]	8 (44.4%)	10 (55.6%)
1970[c]	13 (65.0%)	7 (35.0%)
TOTAL	28 (47.5%)	31 (52.5%)

[a]Two additional participants responded "No Significant Value."

[b]Two additional participants responded "No Significant Value;" One additional participant responded "No Opinion."

[c]One additional participant responded "No Significant Value;" Two additional participants responded "No Opinion."

As can be seen in the data of Table 17-A, a definite trend developed towards perceived value of such consultants. The results of the computed statistical test for significant differences on a year-by-year basis was not statistically significant (chi-square = 5.18; df = 3; chi-square $_{.95} \geq 7.8$). The relative consistency of 1967 to 1969 data simply nullified the effects of the 1970 basis (i.e., over four years). These results suggested an additional analysis whereby the 1967 to 1969 responses would be grouped as a single classification and compared with the 1970 data. The results of this 2 X 2 classification scheme are illustrated in Table 17-B.

TABLE 17-B
Comparative Value Attributed to
Use of "Big Name" Consultants
by Participants: 1967-69 vs. 1970

Year*	Extreme Value	Handled by Less Well-Known
1967-69	15 (38.5%)	24 (61.5%)
1970	13 (65.0%)	7 (35.0%)

*Footnotes identical to those listed in Table 17-A.

The computed statistical value (chi-square = 4.87; df = 1) for the analysis of classed data proved to be statistically significant ($p > .05$). This finding would tend to support the thesis that "big name" or so-called "star" consultants were viewed to be of significant value to 1970 participants. Such an observation has been noted in the previous chapter and in several of the supplementary evaluation reports (e.g., the institute evaluation conducted by CIRCE).

Objective: "Willingness to Attend Future Institutes and Composition Patterns of Institute Participants"

Commitment to the Institute Method. Approximately 60 to 65 per cent of the respondents indicated that they would, in fact, commit themselves to the institute method of earning an advanced degree. Very few of the participants gave a definite no,and a significantly large number (approximately 40 per cent), particularly in the years 1967, 1969 and 1970 said maybe.

TABLE 18
Comparative Willingness of Participants to Commit Attendance to Future Institutes

Year	Yes		No		Maybe	
1967	6	(42.9%)	2	(14.2%)	6	(42.9%)
1968	6	(66.6%)	2	(22.2%)	1	(11.1%)
1969	11	(52.4%)	2	(9.5%)	8	(38.1%)
1970	10	(43.5%)	6	(26.1%)	7	(30.4%)
TOTAL	33	(49.3%)	12	(17.9%)	22	(32.8%)

A series of tests conducted did not result in statistically significant findings. The initial test was conducted against the component data illustrated in Table 18, resulting in a non-significant chi-square value (5.47; df = 6; chi-square $_{.95} \geq 12.6$). Subsequent analysis included a test against "Yes/Maybe vs. No" responses over the four years (chi-square = 2.36; df = 3; chi-square $_{.95} \geq 7.8$) and a test of "Yes vs. No vs. Maybe" responses for the 1967 to 1969 vs. 1970 participants (chi-square = 1.83; df = 2; chi-square $_{.95} \geq 6.0$).

These data would suggest that a majority of participants view the institute method as an avenue to earning an advanced degree, but the 40 per cent "Maybe" response rate would also suggest that a large number of participants were undecided regarding this method as being either the most viable or appropriate alternative route to seeking an advanced degree.

Preferential Composition Patterns of Institute Participants. For the years 1967 and 1968 the participants seemed to be fairly evenly divided between homogeneous and heterogeneous grouping. In 1969 there was a considerable switch in opinion with approximately 43 per cent indicating they favored heterogeneous and only 10 per cent favoring homogeneous grouping. In the 1970 institute the preference switched back to 65 per cent of the participants indicating they supported homogeneously-grouped participants.

TABLE 19
Comparison of Preferential Composition Patterns of Institute Participants

YEAR	Preferred Composition Pattern		
	Homogeneous	Heterogeneous	No Opinion
1967	5 (35.7%)	6 (42.9%)	3 (21.4%)
1968	4 (44.4%)	3 (33.3%)	2 (22.2%)
1969	2 (9.5%)	9 (42.9%)	10 (14.9%)
1970	15 (65.2%)	6 (26.1%)	2 (8.7%)
TOTAL	26 (38.8%)	24 (35.8%)	17 (25.4%)

The computed chi-square value (17.24; df = 6) for the data in Table 19 was highly significant ($p > .01$) suggesting that the issue of preferential composition patterns was a major issue in the institutes, especially as a function of participant selection criteria. These data would further suggest careful consideration of the interaction of participant characteristics with program content in the design of future institutes. In retrospect, most

of the 1970 participants were "experienced" researchers/evaluators and were offered a focused program of instruction specific to their rather common needs. The participants in the earlier institutes came to the summer program from a wide array of positions and levels of experience and were presented with a survey or overview approach to evaluation rather than a concentrated instructional program.

Objective: "General Strengths and Weaknesses of the Institute Model"

Three open-ended inquiries were designed to solicit participants' opinions regarding the design of institute programs.

Recommended Changes in Institute Design. While the inquiry item did not lend itself to quantification, representative responses indicate those areas where participants felt major changes in program design should be considered. A few of these responses are listed below:

"More strucutre"

"Greater emphasis on statistics"

"Lengthen the institute"

"Make computer programming optional"

"Some type of follow-up activities to encourage further interest"

"More emphasis on how to write a proposal"

"More time for individual research and reading"

"More emphasis on 'problem-solving' rather than specialization"

"More participant consultant interaction"

"More careful selection of participants"

"Try to involve the agencies the participants represent"

"More homogeneous grouping"

The array of responses further suggest the need to carefully interface participant characteristics and needs with program design and content as noted in the preceding sub-section.

Perceived Strengths of the Institute Model. The general consensus of the responses to this inquiry centered around two areas; interaction and professional growth. Numerous participants stated that they felt the "exchange of information" with fellow participants, institute staff and the consultants was of extreme value. The ability to exchange ideas, both formally and informally, with fellow educators and to solicit assistance from others who may have been more experienced seemed to be viewed as the overwhelming strengths of the institutes. The statistical significance of these observations have been discussed in an earlier section of this chapter and will not be reiterated here.

A second-level asset to the institute model was the opportunity for professional growth, "up-dating oneself," the exposure to new materials and the use of real-life simulations for problem solving.

Perceived Weaknesses of the Institute Model. Once again, typical responses seemed to be:

"Too much material in too short a time"

"Too much emphasis on computer program writing"

"Not enough use of planned 'team learning'"

"Bogging down on course lectures"

"Lack of follow-up"

"The variance of personal backgrounds"

"Too much talk and little action. The 'ivory tower' approach is of very little help"

"Direction"

"Why not have the entire institute work on developing one program/project in depth?"

The statements recurring most frequently seem to be those stating that the institute attempted to accomplish too much in too short a period of time, thus giving only superficial attention to the instructional areas, and secondly, the lack of any type of follow-up activities such as post-institute seminars or workshops designed to help participants meet real-life problems they face in attempting to implement institute materials or concepts in the field.

Objective: "Changes in Job Function; Dissemination; Continuation of Professional Development in Research/Evaluation"

As noted in Chapter IV, the inquiry items associated with this objective (see Figure 17) reflect mainly the interests of DHEW/USOE personnel.

Changes in Role and/or Job Function. Although the responses to this question did not lend themselves to statistical treatment, the responses are indeed worth noting. Thus, the reader is referred to Appendix F for a listing of participant job changes since attending the institutes. Because it is extremely difficult to determine a direct causal relationship between participating in the institute and subsequent job changes, a detailed analysis of job changes has intentionally been avoided. Further documentation of role and/or job function changes is noted below (see Tables 22-A and 22-B).

Participants' Dissemination Activities Related to Institute Attendance. The response pattern to inquiries regarding post-institute dissemination activities would suggest that approximately 46 per cent of the participants have rather consistently been asked to provide additional training of an in-service nature. The number of "Yes" responses noted has steadily increased over the years from a low of 21 per cent in 1967 to a high of 60 per cent in 1970. These data are summarized in Table 20.

TABLE 20
Comparison of Participants' Dissemination Activities Related to Institute Attendance

Year	Requested to Dessiminate		Not Requested to Dessiminate	
1967	3	(21.4%)	11	(78.6%)
1968*	3	(37.5%)	5	(62.5%)
1969*	11	(55.0%)	9	(45.0%)
1970	14	(60.9%)	9	(39.1%)
TOTAL	31	(47.7%)	34	(52.3%)

*One 1968 participant and one 1969 participant did not respond to this item.

The computed chi-square value (7.45; df = 6) was statistically significant ($p > .025$) for the 2 X 4 analysis. It should also be noted that the significant increase in requests for dissemination activities occurred subsequent to the 1968 institute. Only minimal differences were reported for the 1967 vs. 1968 and 1969 vs. 1970 comparisons.

This does seem to reflect a trend on the part of State and local educational agencies to attempt to upgrade the evaluation

capabilities of their local staffs. The sharp increase between 1968 and 1969 reflects Federal, State and local pressures during 1969 and 1970, as well as actual needs of agencies, to undertake staff development activities as a function of emerging guidelines governing Federal and State-supported programs/projects. Samples of content and audiences for these dissemination activities are reported below:

"One presentation to a School Board"

"Twenty School Guidance people --'Colloquium on Innovation and Direction in Guidance'"

"At State Department of Education for 75 members of staff concerning CIPP evaluation model"

"Six sessions behavioral objectives for ten Department personnel"

"One presentation to Department staff members in PERT and methods of evaluation"

"Three in context evaluation--State Department personnel, Chief State School Officer and assistants, teachers and administrators"

"Two workshops for Title I, III and IV projects for Directors, and State agency staff"

Another related interpretation could be that the steady increases reflect the fact that in all of the four years the trainee was required to receive a recommendation from his or her immediate supervisor before being considered for selection as a participant. As such, levels of expectation on the part of superiors, relative to participant performance, tend to increase in 1969 and 1970 since those participants were expected to disseminate knowledge gained from the institute experience, not only

as a condition of attendance, but also more as a function of their role and/or job function within the State or local agency.

Participants' Post-Institute Training Activities. The response pattern suggested that,generally, from a third to a half of the participants sought further training in either seminars or workshops dealing with evaluation and research. A series of sample comments follow:

"Attended week-long workshop in Wisconsin to study behavioral objectives in reading -- 1969"

"DISP Executive team retreat -- three days on accountability -- 1970"

"Research Practicum, Systems Evaluation in Educational Decision-Making -- University of Iowa -- 1970"

"Waco, Texas -- November 1970 -- Professional Growth Program, Waco, Texas -- March 1971 -- Educational Research Project"

"Doctoral Program -- University of Michigan -- 1967-1969"

"Yes -- as components of conferences"

"Multi-variate statistics -- Nova University -- 1971"

"Six hours in research as Ph.D. candidate -- University of Miami -- September 1971"

"Through 1972 -- doctoral studies in evaluation, research and educational development"

"University of North Carolina -- Fall course in Educational Research 1971"

Comparisons of participants' post-institute training activities are detailed in Table 21.

TABLE 21
Comparison of Participants' Training Activities Subsequent to Institute

Year	Pursued or Completed Further Training		Did Not Undertake Further Training	
1967	4	(28.6%)	10	(71.4%)
1968	4	(44.4%)	5	(55.6%)
1969	7	(33.3%)	14	(66.7%)
1970	12	(52.2%)	11	(47.8%)
TOTAL	27	(40.3%)	40	(59.7%)

The computed chi-square value of 2.60 for the component data above was not statistically significant (df = 3; chi-square $_{.95} \geq 7.8$) for the across-years analysis. Even when these data were collapsed into a 1967 to 1969 vs. 1970 comparison, the resulting value was not significant (chi-sqaure = 2.48; df = 1; chi-square $_{.95} \geq 3.8$).

Role and/or Job Function Change as a Function of Institute Participation. The responses to this inquiry seem to fall into two distinct categories as depicted in Table 22-A.

TABLE 22-A
Comparison of Job Function or Role Change As a Result of Institute Participation

Year	Very Significant	Significant	Somewhat Siginificant	Not at All	Don't Know
1967	2 (14.3%)	---	7 (50.0%)	4 (28.6%)	1 (7.1%)
1968	3 (33.3%)	---	4 (44.4%)	1 (11.1%)	1 (11.1%)
1969	4 (19.0%)	10 (47.6%)	6 (28.6%)	1 (4.8%)	---
1970	4 (17.4%)	10 (43.5%)	5 (21.7%)	3 (13.0%)	1 (4.4%)
TOTAL	13 (19.4%)	20 (29.9%)	22 (32.8%)	9 (13.4%)	3 (4.5%)

First, for those 1967 and 1968 participants who reported role and/or job function changes subsequent to the institute, only 14 per cent (1967) and 33 per cent (1968) saw their participation as being very significantly related to this change, while for the same years, 50 per cent and 44 per cent, respectively, saw participation as a somewhat significant element to their change in role and/or job function. In neither year did participants view participation as "Significant." During 1969 and 1970, on the other hand, 65 per cent and 61 per cent, respectively, of the respondents saw participation as significantly or very significantly related to post-institute changes in role and/or job function.

TABLE 22-B
Comparison of Significance of
Job Function or Role Change
As a Result of Institute Participation

Year	Very Significant or Significant		Somewhat Significant, Not at All, or Don't Know	
1967	2	(14.3%)	12	(85.7%)
1968	3	(33.3%)	6	(66.7%)
1969	14	(66.7%)	7	(33.3%)
1970	14	(60.9%)	9	(39.1%)
TOTAL	33	(49.2%)	34	(50.8%)

When across-year comparisons are made against classed data (very significant or significant vs. somewhat significant, not at all significant or don't know), the resulting chi-square

value of 12.1 (df = 3) was very highly significant ($p > .01$). These results clearly suggest that the mobility patterns of participants are related, at least in large measure, to institute attendance and, hopefully, knowledge and skills gained as institute participants.

Analysis of Likert-Type Scale Items. As previously noted in Chapter IV, a further method of data analysis involved the grouping of the Likert-type scale items of the "Question No. 10 Series" to assess changes in perceived value of each instructional area of the 1967 to 1970 programs. Similarly, the procedure for the calculation of weighted mean scores for each area was also detailed in Chapter IV.

The results of these evaluations are summarized in Table 23, and the data are presented in several formats to facilitate examination and analysis. First, the weighted mean scores for each area are noted for both during and after participation in the institutes and represent cumulative responses across all four institutes. Second, a difference score between the weighted mean scores for during-minus-after participation are listed. Finally, the rank order of perceived value of each instructional area are illustrated for during and after assessments.

Three tests were conducted against these data. The initial inquiry was to determine whether or not the difference between the during vs. after weighted mean scores was statistically significant. "Student's" test of the weighted mean difference scores across the thirteen scales revealed an extremely significant "t" for the predicted one-tailed directional test (i.e., that perceived values during participation would have decreased upon post-institute assessment). The average weighted mean difference score across the thirteen scaling was -0.26. The computed statistic ($t_{\bar{d}} = -16.26$; df = 12) was significant well beyond $p > .0005$ (where $t_{\bar{d}.9995} \geq 4.32$).

The second test was designed to assess shifts in the rank order of each of the thirteen instructional areas on a during vs. after basis. Spearman's "Rho" (i.e., coefficient of rank correlation) was used to assess the significance of shifts in perceived value of each area. The test revealed an Rho value of 0.93. Since N was greated than 10 (i.e., 13 instructional areas), a t-test was used to test the significance of Rho with (N-2) degrees of freedom. Again, assuming only a two-tailed, non-directional test, the computed t_{Rho} of 8.39 was statistically significant at $p > .0005$.

Finally, to further substantiate the hypothesized statistical significance of decreasing value of instructional areas on a during vs. after comparison, a non-parametric sign test was applied against the computed weighted mean difference scores for the thirteen scales. While an examination of results in Table 23 would obviously support the hypothesis, the test indeed showed

that for N = 13, an X 0 had a one-tailed probability of occurrence of $p > .001$.

The present chapter dealt with the analyses of the findings in response to the Follow-Up Questionnaire administered to each participant in the 1967 to 1970 institutes. Chapter VI will present a review and summary of the findings for each instructional objective, followed by conclusions and recommendations arrived at as a result of the study.

TABLE 23
Perceived Value of 1967-1970 Institute Instructional Areas (During vs. After)

	Instructional Component	"Q-10 Series" Item #	Weighted Mean Score		Difference (D - A)	Weighted Mean Score RANK	
			During	After		During	After
I	Knowledge gained from interaction with fellow participants.	I	4.24	4.01	- 0.23	1.0	1.0
J	Knowledge gained from interaction with institute staff (exclusive of outside consultants).	J	4.06	3.58	- 0.48	2.0	5.0
L	Knowledge of proposal writing skills acquired.	L	4.01	3.93	- 0.08	3.0	2.0
C	Understanding the various administrative approach to program/project management.	C	3.94	3.76	- 0.18	4.0	4.0
A	Developing and writing behavioral objectives.	A	3.87	3.84	- 0.03	5.0	3.0
E	The CIPP model of Evaluation (context, input, process, product).	E	3.70	3.51	- 0.19	6.0	6.5
M	Importance of readings in required texts as well as outside sources.	M	3.63	3.45	- 0.18	7.0	8.0
D	The skill acquired in utilizing the Program Evaluation Review Technique (PERT).	D	3.61	3.19	- 0.42	8.0	9.0
K	Knowledge gained from interaction with Institute consultants outside of the classroom.	K	3.51	3.18	- 0.33	9.5	10.0
H	The statistical skills offered as an introductory base or general review of those needed in research.	H	3.51	3.51	0.00	9.5	6.5
B	The construction and identification of learning hierarchies.	B	3.40	2.82	- 0.58	11.0	11.0
F	The skills and practice acquired by writing computer programs.	F	3.13	2.69	- 0.44	12.0	12.0
G	The skills and practice acquired in operating computers and computer supportive hardware.	G	2.78	2.57	- 0.21	13.0	13.0

CHAPTER VI

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to determine the suitability, through an assessment of four University of New Hampshire institutes, of six-week, federally sponsored, research/evaluation training institutes as one alternative to effectively training a variety of management personnel in technique necessary for appropriate research/evaluation strategies. In the previous chapter the findings were presented and analyzed. In the present chapter each instructional objective for the institutes will be reviewed briefly and a summary of findings will be presented. This will be followed by the conclusions reached from these findings. Recommendations based upon the findings of this study will then be set forth.

REVIEW AND SUMMARY OF INSTRUCTIONAL OBJECTIVES

Developing a Personal Program/Project of Evaluation or Research: Results Summarized

The data from the five questionnaire items regarding the development of a participant's proposal writing skill appears to indicate that the post-institute increase in proposal writing activities across the four-year period might be attributed to skills acquired in the institute program. The comparative analysis across institutes does indicate that the pre/post difference in proposal writing activities is not statistically significant.

However, the same analysis done on the 1967 to 1969 institute participants, eliminating the 1970 institute which was dominated by participants with proposal writing skills, shows that indeed there is a statistical significance change. This does indicate that the objective of providing proposal writing skills does, in fact, substantially increase post-institute proposal writing activities for participants whose experience in this area is limited or negligible. In this same vain, most of the proposals written and submitted were "action research" in content and focused on local organizations or agencies, which reflects the experiential background of the participants. The level of implementation was statistically significant for the 1967 to 1970 participants as a whole. However, this was due mainly to the extremely high (74 per cent) "Active/Implemented" rate of the 1970 participants. Regarding the value attributed to proposal writing skills, 70 to 75 per cent of the participants during the institutes viewed it as important to extremely important. Post-institute ratings ranged from 60 per cent in 1967 and 1968 who saw it as important to extremely important to 75 to 80 per cent for 1969 and 1970, which seemed to indicate that educators were becoming more aware of the value of grantsmanship. None of the pre/post comparison of the value of this skill proved to be statistically significant for any identifiable group or for institute participants as a whole.

Alternatives Open to the Educator in Terms of Educational Evaluation/Research Methodologies: Results Summarized

Three questionnaire items were designed to solicit participant responses regarding information and skills keyed to the use of alternative evaluation/research methodologies. While most participants (80 per cent) placed an important to extremely important value on skills related to alternative administrative approaches, the data suggests that the institutes reinforced this feeling but not to such a degree as to be statistically significant. The major group differences in skills acquired in utilizing the Program Evaluation Review Technique (PERT) were found to exist when comparisons of "during vs. after" perceptions were analyzed. Two of the five group comparisons proved statistically significant. The "during vs. after" analysis of all participants across the four institutes was statistically significant. The group analysis of teacher and school administrator participants also proved statistically significant beyond the .05 level and appears to have been the major contributor to the previous effect. The major change in value attributed to PERT occurred in the area of teachers and school administrators and reasonably so since their exposure to PERT prior to the institutes was probably minimal. The important conclusion gained here was that PERT was disseminated to a group of unexperienced participants who attached a significant value to the experience. The final alternative methodology, the CIPP Evaluation Model, was found to be significant for the after institute comparison of "school vs. others."

This data also indicates that the effect was a post-institute effect on these participants. It should be noted that the level of development of the CIPP Model prior to 1970 obviously tended to diffuse the probability of a statistically significant finding.

Communication Techniques Applicable to Decision-Making and Participant Instruction: Results Summarized

The effectiveness of communications between participants, staff, and consultants was assessed by four questionnaire items. Two rather marked patterns emerged from the response data. The first, that participants judged that the institute staff and, to a lesser degree, the consultants were available to them in post-institute situations and, secondly, that post-institute interactions with other participants was greater than with either staff or consultants. This indicator is not unusual given the demographic and geographic composition of the first two institutes. In separate analysis, statistical significance was found for interaction between participants-consultants and also between participants-participants on a post-institute basis with noted examples of contact content. Knowledge gained from interaction with fellow participants was assessed by 70 to 80 per cent of the respondents as important to extremely important during the institute and by 60 to 70 per cent after the institute. Such high rating levels leave little room for increase;and, therefore, one would not expect a statistically significant change. Data related to knowledge gained from participant interaction with institute staff indicate two statistical significant comparisons:

during vs. after for "all participants" and "school vs. others" on a post-institute basis. In the first instance, the chi-square results substantiate the percentage findings reported previously which indicated a decrease from during to after institute rating in the perceived value of knowledge gained from interaction with staff. The second case simply underscores the finding that for "others" (i.e., SDE and College/Research Personnel) the post-institute ratings dropped markedly while the ratings of school personnel remained relatively unchanged. This can be explained by the historical relationship of the BERTS staff with school personnel. Institute participation by teachers and school administrators in essence reinforced this relationship. Knowledge gained from out-of-classroom interaction with consultants indicated no statistical significance for group comparisons. Thus, most participants viewed out-of-classroom interaction with consultants as highly positive during the institute and maintained this same level of importance after the program.

Data Processing; Current Literature; Behavioral Objective; Learning Hierarchies; and Statistical Skills: Results Summarized

The value of these objective components was assessed by six discrete items within the "Question No. 10 Series." The value of developing and writing behavioral objectives was not found to be statistical significant, thus supporting the high percentage data value attributed to this particular instructional segment. Data collected on constructing and identifying learning hierarchies suggests that only school personnel felt this instructional segment had some practical value. Group comparisons provided a during

vs. after decrease in value placed on learning hierarchies for all participants and a slightly smaller significant decrease in value for SDE and College/Research Personnel. The response pattern for skills in writing computer programs seems to indicate a decreasing value on this skill possible due to the increase in the number of programmers available. No statistically significant decrease was found, however, possibly due to the optional status of this instructional segment in the 1970 institute. Skill in operating computers and supportive hardware was viewed as minimally important to important by more than 60 per cent of the participants during the institute and by 50 per cent after the program. The lack of significance substantiates these percentages and previously noted explanations reflect the cause. Although there were no statistically significant differences for the value attributed to statistical skills between "during vs. after," the year-by-year decrease in perceived value underscores the national trend toward training specialists in this area and making them accessible to program/project managers. Data collected on the importance of readings in required texts was rather consistent with 70 to 80 per cent of the participants viewing this activity as minimally important to important. However, a pattern of increasing perception of this activity as extremely important began in the 1969 to 1970 institutes. Two possible reasons for this could be an increasing awareness of project managers of the need to survey relevant literature and an increasing availability of such literature.

Use of Instructional Materials and Need for "Big Name" Consultants: Results Summarized

The assessment of this objective was treated by two items in the follow-up questionnaire. The first, concerned with the use of instructional materials,did not lend itself to statistical analysis,but responses indicated a wide range of post-institute uses. The majority of participants for 1967 and 1968 felt instruction could be handled just as effectively by less well-known people as by "big name" consultants. By 1970 a majority of the respondents felt that use of important consultants was of extreme value. Although a definite trend develops towards the perceived value of such consultants beginning in 1969, no year-by-year comparison is significant. However, a 2 X 2 comparison of "1967-69 vs. 1970" participant responses did prove statistically significant indicating increasing emphasis on prominent consultants.

Future Institutes and Composition Patterns of Institute Participants: Results Summarized

This particular objective was assessed by two items in the questionnaire. The first, dealing with the participants' willingness to commit themselves to future institutes, found that approximately 60 to 65 per cent would. However, no comparative analysis made proved to be statistically significant and the 40 per cent "Maybe" response rate would also seem to suggest that a large number of participants were undecided. The computed chi-square value for preferential composition patterns of institute participants was highly significant, suggesting careful consideration be given to participant characteristics when designing future institute content.

General Strengths and Weaknesses of the Institute Model: Results Summarized

Three open-ended inquiries were designed to solicit participants' opinions regarding the design of institute programs. None of the three items lended themselves to quantitative analysis, but the wide range of responses for each item does tend to emphasize the need once again for serious consideration of participant characteristics and needs when designing program content.

Change in Job Function; Dissemination; Professional Development in Research/Evaluation: Results Summarized

Four items on the questionnaire were used to accrue data for assessment of this objective. Data related to the participants' dissemination activities proved to be statistically significant when the chi-square value was computed. This does seem to reflect a trend toward attempting to provide staff development training for local personnel. The sharp increase between 1968 and 1969 appears to reflect Federal, State and local pressures for that period of high program funding as well as actual emerging agency needs. The response pattern to post-institute training activities suggest that from a third to a half of the participants sought further training in either seminars or workshops dealing with research/evaluation. Responses to the question of change in role and/or job function did not lend itself to statistical treatment since it was extremely difficult to determine a direct causal relationship between participation in the institute and subsequent job change. A list of participant job changes since attending the institutes is included in

the Appendix. When across-year comparisons are made against classed data (very significant or significant vs. somewhat significant, not at all significant or don't know), the resulting chi-square was very highly significant, clearly suggesting that the mobility patterns of participants are related to institute attendance.

Weighted Rating of Likert-Type Scale Items: Results Summarized

Weighting of the Likert-type scale items of the "Question No. 10 Series" was done to assess changes in perceived value for each instructional area of the 1967 to 1970 programs as measured during and after the institutes and a rank order of perceived value of each instructional area, during and after the institute, developed. The difference between the during and after weighted mean score was statistically significant which substantiated a decreasing value for instructional areas on a during vs. after comparison.

The during vs. after rank order of the thirteen instructional areas shifted to such a marked degree that it too was found to be statistically significant. These results suggest the need to carefully assess the priority of instructional areas to be included in such institutes, particularly with regard to post-institute impact of such areas. For example, the inclusion of computer programming and associated hardware operation no longer appears to be of significant value in training educational evaluators.

CONCLUSIONS

1. Proposal writing activities do substantially increase during the post-institute period for those participants whose experience in this skill area was limited or negligible at the time of the program. However, for those participants with a proposal writing background, the inclusion of this instructional area into the institute design did not increase post-institute proposal writing activities.

2. Most participants placed a high value on alternative evaluation/research methodologies. Training in both PERT and CIPP was found to be differentially significant as a function of participant roles and experience levels.

3. Effective communication linkages between participants, consultants and institute staff is a significant element in the training design.

4. Skill development in the area of behavioral objectives and the opportunity to review relevant literature are viewed as significant elements that should be included in most institute designs. Instruction in the development of learning hierarchies is appropriate to only a very limited segment of institute participants. Instruction in the development and/or review of statistical skills, computer programming skills, and the use of computer related hardware is not an appropriate training element when such institutes are designed

for program/project management and evaluation personnel.

5. The limited array of instructional materials available to participants was used in a variety of post-institute activities. The growing emphasis and complexity of educational research/evaluation programming and methodology seems to necessitate the use of highly skilled, prominent consultants as trainers.

6. In terms of this study no definitive conclusion regarding preferential composition pattern for selection of participants can be drawn.

7. Opinions varied substantially regarding the various strengths and weaknesses of the institute model.

8. It was not possible to relate change in participant job function exclusively to attendance at a training institute. There is some evidence, however, that institute participation may be a contributor to role change or job mobility. A significant relationship exists between institute participation and post-institute dissemination activities.

9. There was a significant decrease in value for each instructional component when value assessments were made on a during vs. after institute basis.

Similarly, a significant during vs. after difference in the rank order value of instructional areas was found to exist.

RECOMMENDATIONS

1. For institutes targeted to participants with minimal proposal writing experience, an instructional area focusing on the development of such skills is a valuable component of the training design. However, such a component should be limited, if included at all, when participants' backgrounds already indicate a competence in this area.

2. Instruction in alternatives open to educators in terms of educational evaluation/research methodologies should be offered to all participants. Careful consideration should be given, however, to the level of sophistication of training in this area so it reflects pre-institute experience and post-institute needs. Several levels of instruction for the same alternative might be constructed to more appropriately meet the variable needs of participants.

3. In designing short-term training institutes, a variety of formal and informal vehicles to maximize communication should be incorporated, including opportunities for post-institute follow-up.

4. Although behavioral objective skills development and literature surveys were identified as crucial elements of the institute, the short-time parameters require the development of more concise training packages in these areas.

   If learning hierarchies are to continue in such institutes, consideration has to be given, not only to furthering this thrust in the area of curriculum development, but also to developing better techniques for transfer of the concept out of curriculum and into educational management.

   The areas of statistics and data processing have now become fields of specialization in their own right. Although a cursory knowledge may be valuable to the participant, no extended formal training should be emphasized in institutes serving the type of participant included in this study. The development of separate programs to train specialists in these areas is important, however, since such specialists serve in support functions to educational management and evaluation personnel.

5. Given the relative high cost of such training institutes and instructional materials, consideration should be given to the development of "exportable" instructional packages reflective of staff development/training needs of the participants. Since there are only a limited number of nationally prominent consultants in the areas of educational

research/evaluation who have the technical and communicative skills,as well as time, to teach other alternatives must be explored to satisfy this need.

6. The composition pattern of participants is largely a function of the instructional content of the institute design; therefore, as educational research/evaluation becomes more complex,the need for greater homogeneity may arise.

7. Past participants' recommendations concerning the strengths and weaknesses of previous institutes should be considered in formulating the designs of future institutes.

8. Further study of the relationship between institute participation and role change/job mobility is needed. While the significant relationship of dissemination activities exists, it serves only to emphasize the need for further development and refinement of transferable instructional packages.

9. While a decrease in value on a during vs. after institute basis is expected relative to instructional areas, such a decrease can be minimized by selecting instructional areas for inclusion in an institute design that would have maximum transferability to the local agency level. As in the recommendation concerning participants' perceptions of strengths and weaknesses of previous institutes,

similar consideration should be given to differential values attributed to instructional areas by such institute participants.

APPENDICES

APPENDIX A

PARTICIPANT FOLLOW-UP EVALUATION QUESTIONNAIRE
H.E.W. SUMMER RESEARCH INSTITUTES 1967-1970
U.S. OFFICE OF EDUCATION
NATIONAL CENTER FOR EDUCATIONAL RESEARCH AND DEVELOPMENT

Prepared by

Bureau of Educational Research and Testing Services
P.O. Box Q
University of New Hampshire
Durham, N. H.

1. How many programs/projects proposals did you initiate/write prior to attending your Institute? _____

2. How many programs/project proposals did you initiate/write since attending your Institute? _____

3. Since attending the Institute have you written/initiated any of the following:

   Proposals (Fed., State, Local) titles _____

   _____

   _____

   Evaluations: _____

   _____

   _____

   Research Studies: _____

   _____

   _____

4. My job role and/or function, since attending the Institute has changed from

   _____ to _____.

5. What is the present status of the program/project/proposal you were required to submit as part of your Institute experience?

   _____

   _____

   _____

6. Since your Institute experience have you been in contact with:

   A) Institute Staff YES NO B) Institute Consultants YES NO
   C) Other Participants YES NO

   If yes, please specify the context(s) in which this contact was made

   _____

   _____

   _____

7. Since attending the Institute have you been called on to conduct in-service training programs, workshops or simply give presentations in areas the Institute concentrated on?

YES NO NOT APPLICABLE (If yes, please specify the number, content & audience of such activities)

_____

_____

_____

8. Have you taken or been involved in courses, seminars, workshops, etc., since your Institute, related to educational research and evaluation?

YES NO

If yes, please specify date, title, place, etc.

_____

_____

_____

9. What have you made of the instructional materials presented to you at your Institute?

_____

_____

10. Please rate the following Instructional areas, as presented in your Institute, ACCORDING TO THEIR IMPORTANCE: (a) while attending the Institute and (b) to your present job position.

		Extremely Important	Important	Minimally Important	Not Important At All	No Opinion Response
A Developing and writing behavioral objectives	a					
	b					
B The construction and identification of learning hierarchies	a					
	b					
C Understanding the various administrative approach to program/project management	a					
	b					

		Extremely Important	Important	Minimally Important	Not Important At All	No Opinion Response
The skill acquired in utilizing the Program Evaluation Review Technique (PERT)	a					
	b					
The CIPP model of Evaluation (Context, Input, Process, Product)	a					
	b					
The skills and practice acquired by writing computer programs	a					
	b					
The skills and practice acquired in operating computers and computer supportive hardware	a					
	b					
The statistical skills offered as an introductory base or general review of those needed in research	a					
	b					
Knowledge gained from interaction with fellow participants	a					
	b					

			Extremely Important	Important	Minimally Important	Not Important At All	No Opinion Response
J	Knowledge gained from interaction with B.E.R.T.S. staff (exclusive of outside consultants)	a					
		b					
K	Knowledge gained from interaction with Institute consultants outside of the classroom	a					
		b					
L	Knowledge of proposal writing skills acquired	a					
		b					
M	Importance of readings in required texts as well as outside sources	a					
		b					

11. Do you feel that your job function or role has changed as a result of your participating in the Institute?

☐ very significantly ☐ significantly ☐ some what

☐ not at all ☐ don't know

12. Would you commit yourself to a number of such Institutes (6-weeks) to receive an advanced degree such as a Master's in Educational Research and/or Education?

☐ YES ☐ NO ☐ MAYBE

13. Participants to Institutes of this type should be grouped by experience, job function and expertise on a more

☐ Homogeneous basis ☐ Heterogeneous ☐ no opinion

14. Do you feel the use of "big name" consultants from large, outstanding universities at these Institutes is

☐ of extreme value ☐ something that could be handled by other less well known but comparable trained personnel

☐ of no significant value ☐ no opinion

15. What are some of the changes you would make assuming you were conducting the Institute?

_____

_____

_____

16. What do you believe the greatest strengths of such Institutes are:

_____

_____

_____

17. What do you believe the greatest weaknesses of such Institutes are:

_____

_____

_____

Additional comment or personal opinion:

_____

_____

_____

Complete any statements on back

APPENDIX B

TABLE 10 A

During the Institute

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	2-14.3%	8-57.2%	1-7.1%	--	3-21.4%
1968	1-11.1%	6-66.7%	1-11.1%	--	1-11.1%
1969	8-38.0%	11-52.4%	--	1-4.8%	1-4.8%
1970	5-21.7%	12-52.2%	3-13.0%	2-8.7%	1-4.4%
TOTAL	16-23.9%	37-55.2%	5-7.5%	3-4.4%	6-9.0%

Present Position

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	3-21.4%	5-35.8%	1-7.1%	1-7.1%	4-28.6%
1968	3-33.3%	3-33.3%	2-22.3%	--	1-11.1%
1969	8-38.0%	9-42.9%	1-4.8%	2-9.5%	1-4.8%
1970	8-34.9%	10-43.5%	3-13.0%	1-4.3%	1-4.3%
TOTAL	22-32.8%	27-40.4%	7-10.4%	4-6.0%	7-10.4%

TABLE 10 B

During the Institute

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	--	9-64.3%	2-14.3%	--	3-21.4%
1968	1-11.1%	4-44.4%	1-11.1%	1-11.1%	2-22.3%
1969	3-14.3%	11-52.4%	5-23.8%	1-4.8%	1-4.7%
1970	3-13.0%	11-47.8%	8-34.9%	1-4.3%	--
TOTAL	7-10.4%	35-52.2%	16-23.9%	3-4.5%	6-9.0%

Present Position

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	1-7.1%	6-42.9%	1-7.1%	2-14.3%	4-28.6%
1968	1-11.1%	1-11.1%	3-33.4%	2-22.2%	2-22.2%
1969	--	8-38.1%	9-42.9%	3-14.3%	1-4.7%
1970	3-13.0%	6-26.1%	10-43.5%	3-13.0%	1-4.4%
TOTAL	5-7.5%	21-31.3%	23-34.3%	10-14.9%	8-12.0%

TABLE 10 C

During the Institute

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	2-14.3%	8-57.1%	2-14.3%	--	2-14.3%
1968	3-33.3%	2-22.2%	2-22.2%	--	2-22.3%
1969	5-23.8%	12-57.1%	3-14.3%	--	1-4.8%
1970	7-30.4%	15-65.2%	1-4.4%	--	--
TOTAL	17-25.4%	37-55.2%	8-11.9%	--	5-7.5%

Present Position

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	4-28.6%	4-28.6%	2-14.3%	1-7.1%	3-21.4%
1968	2-22.2%	2-22.2%	1-11.1%	2-22.2%	2-22.3%
1969	4-19.0%	11-52.4%	4-19.0%	1-4.8%	1-4.8%
1970	10-43.5%	11-47.8%	2-8.7%	--	--
TOTAL	20-29.9%	28-41.8%	9-13.4%	4-6.0%	6-8.9%

TABLE 10 D

During the Institute

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	1-7.1%	7-50.0%	1-7.1%	--	5-35.8%
1968	3-33.3%	3-33.3%	2-22.3%	--	1-11.1%
1969	2-9.5%	11-52.4%	5-23.8%	1-4.8%	2-9.5%
1970	8-34.8%	9-39.1%	5-21.7%	1-4.4%	--
TOTAL	14-20.9%	30-44.8%	13-19.4%	2-3.0%	8-11.9%

Present Position

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	1-7.1%	3-21.4%	3-21.4%	1-7.1%	6-43.0%
1968	2-22.2%	2-22.2%	4-44.4%	--	1-11.2%
1969	4-19.0%	4-19.0%	8-38.1%	3-14.3%	2-9.6%
1970	4-17.4%	12-52.2%	7-30.4%	--	--
TOTAL	11-16.4%	21-31.3%	22-32.8%	4-6.0%	9-13.4%

TABLE 10 E

During the Institute

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	--	5-35.7%	3-21.4%	--	6-42.9%
1968	1-11.1%	5-55.6%	2-22.2%	--	1-11.1%
1969	2-9.5%	12-57.2%	5-23.8%	--	2-9.5%
1970	9-39.2%	13-56.5%	--	1-4.3%	--
TOTAL	12-17.9%	35-52.2%	10-14.9%	1-1.5%	9-13.5%

Present Position

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	--	2-14.3%	5-35.7%	1-7.1%	6-42.9%
1968	1-11.1%	2-22.2%	3-33.4%	2-22.2%	1-11.1%
1969	5-23.8%	7-33.3%	3-14.3%	3-14.3%	3-14.3%
1970	11-47.8%	12-52.2%	--	--	--
TOTAL	17-25.4%	23-34.3%	11-16.4%	6-9.0%	10-14.9%

TABLE 10 F

During the Institute

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	2-14.3%	6-42.9%	4-28.6%	2-14.2%	--
1968	4-44.4%	1-11.1%	2-22.2%	2-22.3%	--
1969	2-9.5%	10-47.6%	7-33.3%	--	2-9.6%
1970	1-4.3%	4-17.4%	3-13.0%	3-13.0%	12-52.3%
TOTAL	9-13.4%	21-31.3%	16-23.9%	7-10.4%	14-21.0%

Present Position

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	1-7.1%	3-21.4%	4-28.6%	5-35.7%	1-7.2%
1968	2-22.2%	3-33.3%	2-22.2%	2-22.3%	--
1969	1-4.8%	6-28.6%	6-28.6%	6-28.6%	2-9.4%
1970	2-8.7%	2-8.7%	5-21.7%	2-8.7%	12-52.2%
TOTAL	6-9.0%	14-20.9%	17-25.4%	15-22.4%	15-22.3%

TABLE 10 G

During the Institute

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	1-7.1%	6-42.9%	5-35.7%	1-7.1%	1-7.1%
1968	2-22.2%	3-33.3%	3-33.3%	1-11.2%	--
1969	--	7-33.3%	10-47.6%	2-9.5%	2-9.6%
1970	--	2-8.7%	5-21.7%	4-17.4%	12-52.2%
TOTAL	3-4.5%	18-26.9%	23-34.3%	8-12.0%	15-22.3%

Present Position

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	--	4-28.6%	4-28.6%	5-35.7%	1-7.1%
1968	2-22.2%	4-44.4%	2-22.2%	1-11.2%	--
1969	--	6-28.6%	7-33.3%	6-28.6%	2-9.5%
1970	--	2-8.7%	4-17.4%	4-17.4%	13-56.5%
TOTAL	2-3.0%	16-23.9%	17-25.3%	16-23.9%	16-23.9%

TABLE 10 H

During the Institute

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	5-35.7%	8-57.1%	1-7.2%	--	--
1968	4-44.4%	3-33.3%	2-22.3%	--	--
1969	2-9.5%	11-52.4%	5-23.8%	1-4.8%	2-9.5%
1970	2-8.7%	6-26.1%	2-8.7%	4-17.4%	9-39.1%
TOTAL	13-19.4%	28-41.8%	10-14.9%	5-7.5%	11-16.4%

Present Position

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	3-21.4%	9-64.3%	--	1-7.1%	1-7.2%
1968	3-33.3%	2-22.2%	4-44.5%	--	--
1969	3-14.3%	9-42.9%	6-28.6%	1-4.8%	2-9.4%
1970	4-17.4%	6-26.1%	2-8.7%	1-4.3%	10-43.5%
TOTAL	13-19.4%	26-38.8%	12-17.9%	3-4.5%	13-19.4%

TABLE 10 I

During the Institute

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	6-42.9%	7-50.0%	1-7.1%	--	--
1968	2-22.2%	5-55.6%	2-22.2%	--	--
1969	15-71.4%	5-23.8%	--	--	1-4.8%
1970	10-43.5%	8-34.8%	5-21.7%	--	--
TOTAL	33-49.3%	25-37.3%	8-11.9%	--	1-1.5%

Present Position

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	4-28.6%	8-57.1%	1-7.1%	--	1-7.2%
1968	2-22.2%	2-22.2%	3-33.4%	2-22.2%	--
1969	14-66.7%	5-23.8%	1-4.8%	--	1-4.7%
1970	9-39.1%	9-39.1%	5-21.8%	--	--
TOTAL	29-43.3%	24-35.8%	10-14.9%	2-3.0%	2-3.0%

TABLE 10 J

During the Institute

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	4-28.6%	9-64.3%	1-7.1%	--	--
1968	4-44.4%	4-44.5%	--	--	1-11.1%
1969	9-42.9%	11-52.4%	--	--	1-4.7%
1970	8-34.8%	8-34.8%	4-17.4%	3-13.0%	--
TOTAL	25-37.3%	32-47.8%	5-7.5%	3-4.5%	2-2.9%

Present Position

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	2-14.3%	9-64.3%	--	1-7.1%	2-14.3%
1968	3-33.3%	2-22.2%	4-44.5%	--	--
1969	7-33.3%	7-33.3%	5-23.8%	1-4.8%	1-4.8%
1970	8-34.8%	6-26.1%	6-26.1%	3-13.0%	--
TOTAL	20-29.9%	24-35.8%	15-22.4%	5-7.5%	3-4.4%

TABLE 10 K

During the Institute

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	1-7.1%	7-50.0%	3-21.4%	2-14.3%	1-7.2%
1968	--	4-44.4%	3-33.3%	1-11.1%	1-11.2%
1969	3-14.3%	13-69.0%	3-14.3%	1-4.8%	1-4.8%
1970	6-26.1%	12-52.2%	3-13.0%	1-4.4%	1-4.4%
TOTAL	10-14.9%	36-53.7%	12-17.9%	5-7.5%	4-6.0%

Present Position

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	--	6-42.9%	3-21.4%	2-14.3%	3-21.4%
1968	1-11.1%	--	4-44.5%	4-44.4%	--
1969	2-9.5%	11-52.4%	3-14.3%	4-19.0%	1-4.8%
1970	8-34.8%	9-39.1%	4-17.4%	1-4.4%	1-4.4%
TOTAL	11-16.4%	26-38.8%	14-20.9%	11-16.4%	5-7.5%

TABLE 10 L

During the Institute

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	3-21.4%	11-78.6%	--	--	--
1968	5-55.6%	2-22.2%	1-11.1%	1-11.1%	--
1969	6-28.6%	12-57.1%	1-4.8%	1-4.8%	1-4.8%
1970	9-39.1%	9-39.1%	4-17.4%	1-4.4%	--
TOTAL	23-34.3%	34-50.7%	6-9.0%	3-4.5%	1-1.5%

Present Position

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	3-21.4%	6-42.9%	3-21.4%	1-7.1%	1-7.1%
1968	2-22.2%	4-44.4%	3-33.3%	--	--
1969	9-42.9%	7-33.3%	3-14.3%	1-4.8%	1-4.8%
1970	12-52.2%	9-39.1%	1-4.4%	1-4.4%	--
TOTAL	26-38.8%	26-38.8%	10-14.9%	3-4.5%	2-3.0%

TABLE 10 M

During the Institute

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	3-21.4%	7-50.0%	4-28.6%	--	--
1968	1-11.1%	5-55.5%	3-33.3%	--	--
1969	7-33.3%	9-42.9%	4-19.0%	--	1-4.8%
1970	4-17.4%	11-47.8%	7-30.4%	1-4.4%	--
TOTAL	15-22.4%	32-47.8%	18-26.9%	1-1.5%	1-1.5%

Present Position

	Extremely Important	Important	Minimally Important	Not Important	No Opinion
1967	2-14.3%	7-50.0%	4-28.6%	--	1-7.1%
1968	--	5-55.6%	4-44.4%	--	--
1969	7-33.3%	7-33.3%	5-23.8%	1-4.8%	1-4.8%
1970	3-13.0%	12-52.2%	6-26.1%	2-8.7%	--
TOTAL	12-17.9%	31-46.3%	19-28.4%	3-4.5%	2-3.0%

A P P E N D I X C

PARTICIPANT RESPONSES BY PROFESSIONAL ROLE

- Teachers
- School Administrators
- State Department of Education Personnel
- Research/College Personnel

T = Teachers SA = School Administrators, SD = State Department of Education Personnel, R/C = Research/College Personnel

10 A

During Institute	Extremely Important				Important				Minimally Important				Not Important				Not Opinion				Total
	T	SA	SD	R/C	T	SA	SD	R/C	T	SA	SD	R/C	T	SA	SD	R/C	R	SA	SD	R/C	
1967	1	-	1	-	2	3	1	1	1	1	-	-	-	-	-	-	1	1	-	1	14
1968	1	-	-	-	3	1	-	2	1	-	-	-	-	-	-	-	-	1	-	-	9
1969	4	2	1	-	3	5	2	1	-	-	-	-	1	-	1	-	-	1	-	-	21
1970	2	1	1	2	-	2	7	4	-	-	1	1	-	-	1	-	-	-	-	1	23
Total	8	3	3	2	8	11	10	8	2	1	1	1	1	-	2	-	1	3	-	2	67
Present Position																					
1967	1	2	-	-	2	2	2	-	-	-	-	-	1	-	-	-	1	1	-	2	14
1968	2	1	-	-	2	-	-	1	1	-	-	1	-	-	-	-	-	1	-	-	9
1969	4	3	2	-	3	3	1	1	1	1	-	-	-	-	1	-	-	1	-	-	21
1970	2	1	3	1	-	2	6	2	-	-	-	3	-	-	1	1	-	-	-	1	23
Total	9	7	5	1	7	7	9	4	2	1	-	4	1	-	2	1	1	3	-	3	67

10 B

During Institute																					
1967	-	-	-	-	4	2	2	1	-	2	-	-	-	-	-	-	1	1	-	1	14
1968	-	1	-	-	2	-	-	2	1	-	-	-	1	-	-	-	1	1	-	-	9
1969	2	-	1	-	5	4	2	1	1	3	-	-	-	-	1	-	-	1	-	-	21
1970	-	1	1	1	1	2	6	2	1	-	3	4	-	-	-	1	-	-	-	-	23
Total	2	2	2	1	12	8	10	6	3	5	3	4	1	-	1	1	2	3	-	1	67
Present Position																					
1967	1	-	-	-	2	3	2	-	-	1	-	-	1	-	-	-	1	1	-	2	14
1968	-	1	-	-	2	-	-	-	1	-	-	1	1	-	-	1	1	1	-	-	9
1969	-	-	-	-	3	2	2	-	5	3	1	1	-	2	1	-	-	1	-	-	21
1970	-	1	1	1	1	2	3	-	1	-	4	5	-	-	2	1	-	-	-	1	23
Total	1	2	1	1	8	7	7	-	7	4	5	7	2	2	3	2	2	3	-	3	67

10 C

During Institute	Extremely Important				Important				Minimally Important				Not Important				No Opinion				Total
	T	SA	SD	R/C	T	SA	SD	R/C	T	SA	SD	R/C	T	SA	SD	R/C	T	SA	SD	R/C	
1967	-	1	-	1	2	3	2	1	2	-	-	-	-	-	-	-	1	1	-	-	14
1968	1	1	-	-	2	-	-	1	1	-	-	1	-	-	-	-	1	1	-	-	9
1969	3	2	-	-	5	3	3	1	-	2	1	-	-	-	-	-	-	1	-	-	21
1970	1	2	2	2	1	1	8	5	-	-	-	1	-	-	-	-	-	-	-	-	23
Total	5	6	2	3	10	7	13	8	3	2	1	2	-	-	-	-	2	3	-	-	67
Present Position																					
1967	-	3	1	-	1	1	1	1	2	-	-	-	1	-	-	-	1	1	-	1	14
1968	1	-	-	-	1	1	-	-	1	-	-	1	1	-	-	1	1	1	-	-	9
1969	2	1	1	-	5	3	3	-	1	2	-	1	-	1	-	-	-	1	-	-	21
1970	1	2	5	2	1	1	5	3	-	-	-	3	-	-	-	-	-	-	-	-	23
Total	4	6	7	2	8	6	9	4	4	2	-	5	2	1	-	1	2	3	-	1	67

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10 D

During Institute																					
1967	-	-	-	1	4	3	-	-	-	-	1	-	-	-	-	-	1	2	1	1	14
1968	2	-	-	1	1	1	-	1	2	-	-	-	-	-	-	-	-	1	-	-	9
1969	2	-	1	-	3	4	3	-	2	2	-	1	1	-	-	-	-	2	-	-	21
1970	1	2	2	2	1	1	4	4	-	-	3	2	-	-	1	-	-	-	-	-	23
Total	5	2	3	4	9	9	7	5	4	2	4	3	1	-	1	-	1	5	1	1	67
Present Position																					
1967	1	-	-	-	-	2	1	-	2	1	-	-	1	-	-	-	1	2	1	2	14
1968	2	-	-	-	2	-	-	-	1	1	-	2	-	-	-	-	-	1	-	-	9
1969	1	1	2	-	3	-	-	-	2	3	2	1	2	2	-	-	-	2	-	-	21
1970	-	1	1	3	1	2	6	2	1	-	3	3	-	-	-	-	-	-	-	-	23
Total	4	2	3	3	6	4	7	2	6	5	5	6	3	2	-	-	1	5	1	2	67

10 E

During Institute	Extremely Important				Important				Minimally Important				Not Important				No Opinion				Total
	T	SA	SD	R/C	T	SA	SD	R/C	T	SA	SD	R/C	T	SA	SD	R/C	T	SA	SD	R/C	
1967	-	-	-	-	2	2	-	-	2	-	1	-	-	-	-	-	1	3	1	2	14
1968	1	-	-	-	2	1	-	2	2	-	-	-	-	-	-	-	-	1	-	-	9
1969	-	-	1	1	5	4	3	-	3	2	-	-	-	-	-	-	-	2	-	-	21
1970	1	1	2	5	1	2	7	3	-	-	-	-	-	-	1	-	-	-	-	-	23
Total	2	1	3	6	10	9	10	5	7	2	1	-	-	-	1	-	1	6	1	2	67
Present Position																					
1967	-	-	-	-	1	1	-	1	2	2	1	-	1	-	-	-	-	2	1	2	14
1968	2	-	-	-	-	-	-	1	2	1	-	-	1	-	-	1	-	1	-	-	9
1969	1	1	2	1	3	3	1	-	1	1	1	-	2	1	-	-	1	2	-	-	21
1970	1	1	6	4	1	2	4	4	-	-	-	-	-	-	-	-	-	-	-	-	23
Total	4	2	8	5	5	6	5	6	5	4	2	-	4	1	-	1	1	5	1	2	67

10 F

During Institute																					
1967	-	1	-	1	3	3	-	-	1	1	1	1	1	-	1	-	-	-	-	-	14
1968	2	1	-	1	1	-	-	-	-	1	-	1	2	-	-	-	-	-	-	-	9
1969	1	1	-	-	2	4	3	1	4	2	-	-	-	-	-	-	1	1	1	-	21
1970	-	1	-	-	1	1	-	2	-	-	2	-	-	1	1	2	1	-	7	4	23
Total	3	4	-	2	7	8	3	3	5	4	3	2	3	1	2	2	2	1	8	4	67
Present Position																					
1967	-	-	1	-	1	2	-	-	1	2	-	1	3	1	1	-	-	-	-	1	14
1968	-	2	-	-	3	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	9
1969	-	1	-	-	3	1	3	1	4	2	-	-	1	3	-	-	-	1	1	-	21
1970	-	1	-	2	1	-	-	1	-	1	3	2	-	1	-	-	1	-	7	3	23
Total	-	4	1	2	8	3	3	2	5	5	3	5	6	5	1	-	1	1	8	4	67

10 G

During Institute	Extremely Important				Important				Minimally Important				Not Important				No Opinion				Total
	T	SA	SD	R/C	T	SA	SD	R/C	T	SA	SD	R/C	T	SA	SD	R/C	R	SA	SD	R/C	
1967	-	1	-	-	2	2	-	2	2	2	2	-	1	-	-	-	-	-	-	-	14
1968	2	1	-	1	1	-	-	-	1	-	-	1	1	1	-	-	-	-	-	-	9
1969	-	-	-	-	2	3	1	1	6	4	1	-	-	-	1	-	-	1	1	-	21
1970	1	-	-	-	-	1	-	-	-	1	2	2	-	-	1	2	1	1	7	4	23
Total	3	2	-	1	5	6	1	3	9	7	5	3	2	1	2	2	1	2	8	4	67
Present Position																					
1967	-	-	-	-	1	1	1	-	1	3	1	-	3	1	-	2	-	-	-	-	14
1968	-	1	-	-	4	-	-	-	-	1	-	2	1	-	-	-	-	-	-	-	9
1969	-	-	-	-	2	1	2	1	3	3	-	-	2	3	1	-	1	1	1	-	21
1970	1	-	-	1	-	1	-	-	-	1	3	1	-	-	-	3	1	1	7	3	23
Total	1	1	-	1	7	3	3	1	4	8	4	3	6	4	1	5	2	2	8	3	67

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10 H

During Institute																					
1967	3	2	-	-	2	3	2	1	-	-	-	1	-	-	-	-	-	-	-	-	14
1968	2	1	-	1	3	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	9
1969	1	-	-	-	3	5	2	1	2	2	-	-	2	-	1	-	-	1	1	-	21
1970	-	1	-	-	1	2	3	1	-	-	1	1	-	-	1	3	1	-	5	3	23
Total	6	4	-	1	9	10	7	3	2	3	1	3	2	-	2	3	1	1	6	3	67
Present Position																					
1967	2	1	-	-	2	4	2	1	-	-	-	-	1	-	-	-	-	-	-	1	14
1968	3	1	-	-	2	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-	9
1969	1	-	2	-	3	5	1	1	4	1	-	-	-	1	-	-	-	1	1	-	21
1970	-	1	-	3	1	2	4	1	-	-	1	1	-	-	-	1	1	-	5	3	23
Total	6	3	2	3	8	11	7	2	4	2	1	3	1	1	-	1	1	1	6	4	67

10 I

During Institute	Extremely Important				Important				Minimally Important				Not Important				No Opinion				Total
	T	SA	SD	R/C	T	SA	SD	R/C	T	SA	SD	R/C	T	SA	SD	R/C	T	SA	SD	R/C	
1967	2	3	1	-	2	2	1	2	1	-	-	-	-	-	-	-	-	-	-	-	14
1968	-	2	-	-	4	-	-	1	1	-	-	1	-	-	-	-	-	-	-	-	9
1969	5	5	2	1	2	2	2	-	1	-	-	-	-	-	-	-	-	1	-	-	21
1970	1	2	1	6	1	1	5	1	-	-	4	1	-	-	-	-	-	-	-	-	23
Total	8	12	4	7	9	5	8	4	3	-	4	2	-	-	-	-	-	1	-	-	67
Present Position																					
1967	1	3	-	-	3	2	2	1	1	-	-	-	-	-	-	-	-	-	-	1	14
1968	-	2	-	-	2	-	-	-	2	-	-	1	1	-	-	1	-	-	-	-	9
1969	6	4	2	1	2	2	2	-	-	1	-	-	-	-	-	-	-	1	-	-	21
1970	2	2	1	5	-	1	4	3	-	-	5	-	-	-	-	-	-	-	-	-	23
Total	9	11	3	6	7	5	8	4	3	1	5	1	1	-	-	1	-	1	-	1	67

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10 J

During Institute																					
1967	2	1	1	-	2	4	1	2	1	-	-	-	-	-	-	-	-	-	-	-	14
1968	3	1	-	-	2	-	-	2	-	-	-	-	-	-	-	-	-	1	-	-	9
1969	4	3	2	-	4	4	2	1	-	-	-	-	-	-	-	-	-	1	-	-	21
1970	1	2	2	3	1	1	3	-	-	-	3	3	-	-	2	2	-	-	-	-	23
Total	10	7	5	3	9	9	6	5	1	-	3	3	-	-	2	2	-	2	-	-	67
Present Position																					
1967	2	-	-	-	2	4	2	1	-	-	-	-	1	-	-	-	-	1	-	1	14
1968	2	1	-	-	2	-	-	-	1	1	-	2	-	-	-	-	-	-	-	-	9
1969	3	3	-	1	3	2	2	-	2	1	-	-	-	1	2	-	-	1	-	-	21
1970	1	2	2	3	1	1	2	-	-	-	4	2	-	-	2	3	-	-	-	-	23
Total	8	6	2	4	8	7	6	1	3	2	4	4	1	1	4	3	-	2	-	1	67

10 K

During Institute	Extremely Important				Important				Minimally Important				Not Important				No Opinion				Total
	T	SA	SD	R/C	T	SA	SD	R/C	T	SA	SD	R/C	T	SA	SD	R/C	T	SA	SD	R/C	
1967	-	-	-	1	2	3	1	1	2	1	-	-	1	-	1	-	-	1	-	-	14
1968	-	-	-	-	2	1	-	1	2	-	-	1	1	-	-	-	-	1	-	-	9
1969	1	-	1	1	7	5	2	-	-	1	-	-	-	1	1	-	-	1	-	-	21
1970	-	1	3	2	1	2	4	5	-	-	3	1	-	-	-	-	1	-	-	-	23
Total	1	1	4	4	12	11	7	7	4	2	3	2	2	1	2	-	1	3	-	-	67
Present Position																					
1967	-	-	-	-	1	3	-	1	1	1	1	-	3	-	1	-	-	1	-	1	14
1968	-	1	-	-	-	-	-	-	2	1	-	1	3	-	-	-	-	-	-	1	9
1969	-	-	1	1	6	3	2	-	1	2	-	-	1	2	1	-	-	1	-	-	21
1970	-	1	4	3	1	2	2	4	-	-	4	1	-	-	-	-	1	-	-	-	23
Total	-	2	5	4	8	8	4	5	4	4	5	2	7	2	2	-	1	2	-	2	67

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10 L

During Institute																					
1967	2	1	-	-	3	4	2	2	-	-	-	-	-	-	-	-	-	-	-	-	14
1968	2	2	-	1	2	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	9
1969	3	1	2	1	4	4	1	-	-	1	1	-	1	-	1	-	-	1	-	-	21
1970	2	2	1	4	-	1	8	1	-	-	-	3	-	-	1	-	-	-	-	-	23
Total	9	6	3	6	9	9	11	3	-	1	1	4	2	-	2	-	-	1	-	-	67
Present Position																					
1967	1	1	-	-	1	4	1	-	2	-	1	1	1	-	-	-	-	-	-	1	14
1968	1	1	-	-	4	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-	9
1969	4	3	1	1	2	3	3	-	1	1	-	-	1	-	-	-	-	1	-	-	21
1970	2	2	2	6	-	1	6	1	-	-	1	1	-	-	1	-	-	-	-	-	23
Total	8	7	3	7	7	8	10	1	3	2	2	4	2	-	1	-	-	1	-	1	67

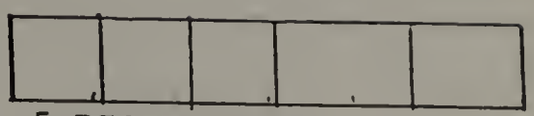
10 M

During Institute	Extremely Important				Important				Minimally Important				Not Important				No Important				Total
	T	SA	SD	R/C	T	SA	SD	R/C	T	SA	SD	R/C	T	SA	SD	R/C	T	SA	SD	R/C	
1967	1	2	-	-	1	3	2	1	3	-	-	1	-	-	-	-	-	-	-	-	14
1968	1	-	-	-	3	-	-	2	1	2	-	-	-	-	-	-	-	-	-	-	9
1969	2	4	1	-	3	2	3	1	2	1	-	-	1	-	-	-	-	1	-	-	21
1970	2	1	-	1	-	2	6	3	-	-	4	3	-	-	-	1	-	-	-	-	23
Total	6	7	1	1	7	7	11	7	6	3	4	4	1	-	-	1	-	1	-	-	67
Present Position																					
1967	1	1	-	-	2	3	2	-	2	1	-	1	-	-	-	-	-	-	-	1	14
1968	-	-	-	-	4	-	-	1	1	2	-	1	-	-	-	-	-	-	-	-	9
1969	1	4	2	-	3	2	1	1	3	1	1	-	1	-	-	-	-	1	-	-	21
1970	1	1	-	1	1	2	6	3	-	-	4	2	-	-	-	2	-	-	-	-	23
Total	3	6	2	1	10	7	9	5	6	4	5	4	1	-	-	2	-	1	-	1	67

APPENDIX D

INSTITUTE PARTICIPANT OPINIONNAIRE

CIRCE
Summer 1970



DIRECTIONS: The following items have been written to enable you to say how you feel about several aspects of an instructional week of your institute. Check one response category for each question and comment if you wish to clarify your response.

Select any 5-digit code number and use it throughout the Institute on these opinionnaires.

	Yes	Yes'"but"	No	I don't know
1. Are you enjoying yourself at this Institute?	☐	☐	☐	☐

Comment: _____

_____

2. Are you getting the change to talk to the staff as much as you would like to?

Yes ☐ Yes-"but" ☐ No ☐ I don't know ☐

Comment: _____

_____

3. In your opinion, is the entire Institute well-organized?

☐ ☐ ☐ ☐

Comment: _____

_____

4. Has the general administration of this past week been well-organized?

☐ ☐ ☐ ☐

Comment: _____

_____

5. Have you been getting along well with other participants at the Institute?

☐ ☐ ☐ ☐

Comment: _____

_____

	Yes	Yes-"but"	No	I don't know
6. Did you enjoy the instructional staff for this week?	☐	☐	☐	☐
7. Do you feel you learned a lot this week?	☐	☐	☐	☐
8. Is the Institute paying enough attention to your important problems?	☐	☐	☐	☐
9. Would your professional peers back home be interested in what you learned this week?	☐	☐	☐	☐

Comment: _____

_____

Comment: _____

_____

Comment: _____

_____

Comment: _____

_____

	Yes	Yes-"but"	No	I don't know
10. Do you think you could teach another group what you have learned this week?	☐	☐	☐	☐
11. Is the Institute meeting your personal expectations for it?	☐	☐	☐	☐
12. Have the staff failed to change or correct certain matters that were brought to their attention?	☐	☐	☐	☐
13. Are you getting the change to study as much as you would like to?	☐	☐	☐	☐

Comment: _____

_____

Comment: _____

_____

Comment: _____

_____

Comment: _____

_____

	Yes	Yes-"but"	No	I don't know
14. Are you getting sufficient opportunity to socialize and recreate?	☐	☐	☐	☐
15. Was the content for this week challenging and important?	☐	☐	☐	☐
16. Are you working hard enough?	☐	☐	☐	☐
17. Did this week "hang together" as an instructional whole for you?	☐	☐	☐	☐

Comment: _____

_____

Comment: _____

_____

Comment: _____

_____

Comment: _____

_____

	Yes	Yes-"but"	No	I don't know
18. Would you want to teacher another group what you have learned this week?	☐	☐	☐	☐
19. Should the presentation for this week have been preceded with more readings, discussion, background materials?	☐	☐	☐	☐
20. Would you recommend including all or part of this week in a package to be used in summer institutes elsewhere?	☐	☐	☐	☐

Comment: _____

_____

Comment: _____

_____

Comment: _____

_____

21. If you have a message for the people running this Institute, please write it here:

_____

_____

_____

_____

_____

22. Do you have a message for an instructor or visiting consultant who worked in the Institute this week? Please write it here.

_____

_____

_____

_____

_____

23. If you were restricted to a sentence or two, how would you describe the main idea of this past week?

_____

_____

_____

24. Was the transition from the previous week(s) to this week of the Institute satisfactory?

If "no," please comment:

_____

_____

_____

☐ Yes ☐ No

25. Grade this past week of the Institute.

☐ A ☐ B ☐ C ☐ D ☐ F

Recheck your 5-digit code number on page 1.
Thank you.

CIRCE

SUMMARY OPINIONNAIRE

CIRCE
Summer 1970

SUMMARY

5-DIGIT CODE

DIRECTIONS: Throughout this Institute you have told us how you feel about a number of aspects of the instructional program of this institute. Now we are asking for some OVERALL reactions. Check one response category for each item, and comment if you wish to clarify your response.

Please use the same 5-digit code on this Opinionnaire that you have been using through the Institute.

1. To what extent do you feel the following objectives were achieved:

	Very Well	Fairly Well	Mini-mally	Not At All
a. An understanding of the problems inherent in the management of an educational evaluation project.	11	15	1	0

	Very Well	Fairly Well	Mini-mally	Not At All
b. A knowledge of methods and procedures for evaluating those curriculum changes with which you as an Institute participant are concerned.	9	16	3	0
c. An awareness of the major alternatives available in terms of educational research methodologies.	8	12	6	1
d. An understanding of the relationship of evaluation to the problems associated with the development dissemination, and adoption process in educational innovation.	8	18	3	0

	Very Well	Fairly Well	Mini-mally	Not At all
e. A familiarity with communications techniques applicable to proper implementation of the decision-making process at various levels of the educational system.	9	16	3	0

2. You probably had some personal objectives which were not the same as those of the Institute. If so, would you indicate below (briefly, please) what they were and how well they were achieved.

(MOST COMMONLY OCCURRING OBJECTIVES)	Very Well	Fairly Well	Mini-mally	Not At All
a. To write a proposal	1	15	6	3
b. To share ideas with others				

	Very Well	Fairly Well	Mini-mally	Not At All
c. To observe evaluation models. _____ _____	☐	☐	☐	☐

3. For each of the four major sections of this Institute, indicate whether time allocated was too little, about right, or too much:

	Too Little	About Right	Too Much
a. Cook: One week was --	10	12	2
b. Walbesser: Two weeks was -	3	7	17
c. Stufflebeam: Two weeks was --	8	18	1
d. Asher: One week was --	7	9	12

4. For each of the four major sections of the Institute, indicate by checking the appropriate box the extent to which you think the material presented during that section was relevant to your own activities or concerns:

	Very Relevant	Somewhat Relevant	Slightly Relevant	Not Relevant
a. Section One (Cook)	5	18	4	1
b. Section Two (Walbesser)	9	9	8	2
c. Section Three (Stufflebeam)	22	4	2	0
d. Section Four (Asher)	9	11	5	3

For the following items, please mark the appropriate box, using these alternatives:

SA = Strongly agree

A = Agree

U = Undecided

D = Disagree

SD = Strongly Disagree

5. The content of this Institute has direct practical utility in my institution.

SA	A	U	D	SD
14	12	2	1	0

Comment: _____

_____

6. In general, the approaches presented here are not feasible in my institution.

SA	A	U	D	SD
0	2	0	21	4

Comment: _____

_____

7. The benefit I derived from the Institute was not worth my expenditure of time.

SA	A	U	D	SD
1	1	3	10	10

Comment: _____

_____

8. This Institute compared favorably, overall with other institutes I have attended.

SA	A	U	D	SD	Does not Apply
4	11	0	1	1	8

Comment: _____

_____

9. The diversity in content and approach presented by the consultants was:

a. Appropriate to the objectives of the Institute.

SA	A	U	D	SD
0	12	6	4	3

Comment: _____

_____

b. Satisfactory to me personally.

SA	A	U	D	SD
5	15	4	2	1

Comment: _____

_____

c. Too great for me to be able to assimilate and integrate things as well as I would have liked.

SA	A	U	D	SD
2	3	1	17	3

Comment: _____

_____

10. If this Institute were to be offered again, I would recomment to others like myself that they attend it.

SA	A	U	D	SD
9	12	4	2	1

Comment: _____

_____

11. Consultants were generally not available for questions and discussion outside of the time scheduled for formal presentations.

SA	A	U	D	SD
0	1	0	15	11

Comment: _____

_____

12. After participating in the Institute, I feel more competent:

a. To approach and conduct evaluation studies.

SA	A	U	D	SD
7	18	2	0	0

b. To design and carry out research projects.

SA	A	U	D	SD
4	14	7	3	2

c. To develop and implement sound decision-making strategies.

SA	A	U	D	SD
7	20	1	0	0

13. For each of the following descriptive statements, indicate by checking the appropriate box(es) which of the sections of the Institute it applies to. The following code is used for the column headings:

(1) Project management models and techniques. (Cook)

(2) Behavioral objectives, design of assessment tasks, and construction of learning sequences. (Walbesser et al.)

(3) Evaluation models and techniques, seminars on problematic simulations. (Stufflebeam, Guba, and Hummond)

(4) Problems associated with developing, disseminating, and adopting educational innovations (Asher and Heisley)

		(1)	(2)	(3)	(4)
a.	This material could have considerable applicability to my work at my own institution.	17	16	23	14
b.	I really don't see how this could apply to the problems with which I have to work.	3	4	2	4
c.	It's likely that I will be able to put this to good use.	18	18	24	18
d.	I don't see how this material could be included in another Institute in the absence of the consultant(s) who presented it here.	3	4	10	2

	(1)	(2)	(3)	(4)
e. This material would be readily transferrable to other Institutes as an instructional package, without requiring that the consultant(s) who presented it here be involved.	19	16	7	16
f. I would recommend that my colleagues attend a Workshop or Instite which had this topic as its central focus.	13	12	26	12

14. How would you describe each of the following aspects of the Institute? (Please check the appropriate response).

	Excellent	O.K.	Undecided	Inadequate	Poor
Facilities	12	15	0	2	0
Time schedule	4	20	2	2	0
Budget	7	12	6	3	1
Format	3	11	8	3	3
Materials	14	11	2	1	0
Equipment	8	14	5	1	0
Staff (Al Elwell, Mo. Oliver, Ev. Barnes)	12	9	3	2	1

	Excellent	O.K.	Undecided	Inadequate	Poor
Consultants	13	11	4	0	0
Participant Observers (Charles Williamson, Stuard Pickard)	9	6	8	3	2
Participants	5	13	5	4	0
Food	7	9	4	0	2

15. Which of the following best describes your overall reaction to the Institute?

[9]	[14]	[1]	[2]	[0]
Very Favorable	Favorable	Undecided	Unfavorable	Very Unfavorable

16. A six-week time allocation for an Institute like this one is:

Questions #16 continued.

[2]	[9]	[9]	[5]	[1]
Much too long	A little too long	About right	A little too short	Much too short

17. Do you have any message for the staff, consultants,

APPENDIX E

Southern Blacks and N.H. HEW Institute 1970

My initial reaction to the HEW Institutes directed through B.E.R.T.S. of the University of New Hampshire during the past three years was, if they are needed and are good for New England educators, they should be needed and good for Southern Black educators, accepting the multitude of lacks produced by long standing segregated school systems.

Although my initial concern with the Black group to attend the institute centered around orientation to an anticipated new cultural milieu, my interest in their educational qualifications grew dominant as the recruiting progressed.

Advanced degrees for Southern blacks have traditionally been earned by hurdling many obstacles. Few black institutions conferred master's degrees; fewer yet, the doctorate. Most graduate work for Southern blacks had to be done away from home, usually at a new institution, often out of the South and usually predominantly white. Here the adequacy of their undergraduate preparation was critically assessed.

Much of the studying done for the master's degree, especially in education, was confined to the summer period. Doctoral degree programs with more stringent

residence requirements often meant an up-rooting of the family with the usual problems of black relocation or a temporary splitting up of the family during the period of residency. The revealed and the hidden costs of a doctoral program were often not justified by the job opportunities available in the candidates' home community of elsewhere in the South or in the North.

If, inspite of these various obstacles, a Southern black successfully completed a doctoral program, he would tend to move into higher education.

So, in the credential game, blacks are most likely to present master's degree as their advanced degree,butressed perhaps with summer institutes.

The following is my initial rationale for a week's orientation period for the Southern black participants in the HEW Institute. 1970.

1. To allow the black members time to become acquainted with each other without the presence of the whites and the pressures of learning.
2. To allow them an opportunity to relate to resident blacks and see the "black New Hampshire" living through their eyes. (See List)

3. To have an opportunity through informal gatherings to express concerns relating to the program and their own situation.
4. To have an opportunity through formal interview to express concerns relating to the program and their own situation.
5. To build mutual trust and confidence between the individuals and the staff of the Institute.
6. To ward off a "black caucus of protest" that often occurs in integrated settings that intentionally or unintentionally fail to meet the needs and abilities of black participants.
7. To establish a social climate that would maximize learning and mutual interaction and sharing.

The following flexible schedule was planned.

First day: Wednesday afternoon, arrival and"settling in".

Wednesday evening, first orientation session at Stokes Hall -- discussion of New England and New England life, with special reference to New Hampshire.

Second day: Thursday, breakfast at the Curwood

Homestead. Emphasis on getting acquainted.

Thursday afternoon - meeting on campus with Mrs. Adams, Office of Vice President. Mr. Johnson, admissions officer for black students.

Discussion of black students on campus.

Evening meeting with black members of the wider community/recreation/theater, etc.

Third day: Friday morning, individual interviews with Curwood.

Friday afternoon; meeting with HEW Institute staff members.

Evening free.

Fourth day: Saturday, morning: Individual interviews

Saturday afternoon: Area sight-seeing.

Saturday evening: BERTS, institute staff and participants picnic and supper at home of Jan and Herb Scheibel.

Fifth day: Sunday morning: Church - sightseeing, beach, etc. and afternoon.

Evening: Welcoming of other members of the institute.

The initial plans for orientation were severely modified.

1. The lateness of recruiting early showed that a full work week period for orientation was impossible. The proposed five day period, starting on Wednesday would include the fourth of July holiday.
2. In spite of the later starting date, all of the participants did not arrive on time and some did not arrive within the designated period when individual interviews were scheduled. Only six of the ten black participants were interviewed.
3. Two black participants, not part of the ten, and one participant from Guam participated in the full five day period.

Wednesday evening four persons met with me.

Thursday morning, five came for breakfast. This was a very pleasant experience. "Who knows whom" is an accepted and important disignation in Southern black groups that are criss-crossed by colleges attended , mutual friends, kinship and fraternalties. Several bonds of solidarigy were forged. Information about New England and New Hampshire was given and information about participants was shared informally.

Friday's day, awaiting the arrival of more members, favored several informal relationships with Institutional staff members. By afternoon, I was able to interview two members. Saturday morning I interviewed two more. The picnic supper was held at my place. A friendly cooperative spirit prevailed as the five black members were joined not only by the Institute and BERTS staff members, but also by other early arriving white participants. I rejoined the group Sunday afternoon in time to welcome more black participants and to interview two more. During the institute, I met the rest of the black participants, took some sight-seeing in Portsmouth, but I did not have an opportunity to complete the interviewing.

List: potential guests.

Lena Coleman: Long time resident of Concord, N.H.

Melvin Bolden: Deck Road, Loudon, N.H. Politically active in the Democratic party.

The Bacon Brothers: of Pembroke, owner of a rug cleaning plant in Concord, N.H. Mrs. Bacon works for the Family Service Agency in Concord.

Clifford Lawrence of Andover, Mass.: works with the Deaf and Blind Children's Division in Concord.

The questionnaire that the participants filled out sought background information about the participants spouse and parents to gain some small understanding of the present home-educational background and the possible childhood home-educational background of an adult engaged in education.

The interview schedule must be viewed as a preliminary form probing at generalized areas of concern that I thought might be relevant to help us understand the interviewee during a "committed to, but not actually in" situation as a base line for later comparisons.

The questions, I believe, are relatively self-explanatory.

The final sheet on which social interactions were recorded has potential for usefulness, but needs an improved format.

The six interviews came from four states: two from Tennessee, two from Louisana (north-south), and one each from Mississippi and Texas. Three of the interviewees were males, three females. One was not married. Most (4), were between the ages of 42 and 47. One was over fifty -

the other under 30. To round it out the average age was 42.

All interviewees are basically stabiles. All are living in the state where they were born; all received undergraduate education in their home state, half of the group did graduate study in their home state. Of the five who were married, four of their spouses were also born and educated in the home state.

All but one held master's degrees; four of them in education, one in history. One husband completed high school and one college. All three wives have college degrees - one a masters'.

A total of 9 children belong to the five who are married; one has four children, one two and the rest have only one child.

The interviewees represented a rather immobile group of persons - well educated within their respective communities. The men are married to college graduate wives. The family size, with one exception, the farm family, is very small, but rather typical of the southern middle class Negro family, long represented in "school teaching".

The educational achievement of parents, in general, is of a lesser level than that of their children. Only two of the interviewees had fathers who had completed college; only one had a mother who had completed college. One had a mother who attended college for two years, but whose father had completed high school. The education of the other four fathers was 7th - 8th (2), 4th (1), DK (1). Of the other four mothers, one completed high school, (2) 7th - 8th, and one DK.

Of the five spouses' parents, three fathers and two mothers were DK's, two fathers and three mothers were 7th grade; the "children" have made big leaps compared with their parents.

#1 All but one of the interviewees saw themselves as having been recruited for the program by a black. The single one directly attributable to a white recruiter came about as an accident. (I mistook Texas A & M (predominantly white) for Prairie View (predominantly black).)

Two to three contacts - rather chain effect were used to recruit. The process was much more time consuming

than I had anticipated, but I feel we opened up new channels for future training. Much of what "happens" seems not to filter through to black educators.

Four of the participants were recruited mainly through college contacts; two, through state departments of education.

#2 All were pleased to be coming to the Institute. For the most part, it was an opening up of an unknown section of the country. Only one expressed mixed feelings of being maneuvered to come to used as a "symbol".

#3 Most cause professionally to learn and start or continue graduate work in a more challenging environment. Several were encouraged by supervising persons to come.

Personally most had a curiosity about a new section of the country. One had made plans for his family to share in the experience the last week - joining work and recreation.

#4 None, expect few logistic details.

#5 The shortness of the time between being accepted and having to come caused the most problems - for some it meant release from regular summer obligations, for one

an actual salary loss and failure to complete one more course for certification (9 New Hampshire credits are not worth anything) - in this case. For one without charge cards, the actual money for travel was a big hurdle. The trip for the most part was very long and exhausting. The least number of problems were faced by those participants who knew in April that they would probably come.

#6 No one seemed to have a clear picture of what the experience would mean when they returned i.e. no clear responsibility "to take back" information. One member had relatively clear responsibility to the extent that most of the time he would be at the Institute, he should have been on the job. He came with the blessings of an active superintendent who could forsee benefits to the system from this experience. One interviewee is responsible for making a full report to the State Office of Education (black sector) and to talk to local groups about the experience.

#7 No one anticipated any problems when they returned to home base.

#8 Only one member seemed fully self-assured about being in the program. One covered self assurance or anxiety or both in a global willingness to learn what needed to be learned. The rest expressed in varying ways and degrees strong anxieties, principally that they would be pushed too hard, not allowed enough time to grasp information fatigue resulting from hard school year mitigated against pacing!!! No real background in education was one participant's anxiety - certain fear too of the COMPUTER. But all were willing to learn.

#9 Unspecified research skills and computer skills were generally seen as prerequisites. But, again, willingness to learn came most often to the forefront.

#10 A certain feeling of "suspicion" evident in various ways came to the fore in the answering of question 10. The most extremes:

a. don't use it against me. People here may be okay but it's Federal material and the next person might not be okay.

b. don't use it to separate blacks from whites.

c. don't degrade.

Several generalized that "that is the way it should be." i.e. testing at any time. Overall, they viewed the testing as "partof the game" part of the price they would have to pay to be in the program. (Resignation to fate!)

#11 The overall picture on intergration *------

#12 Sometimes a black teacher is offered only one job - if she refuses -- out!

White teachers are resigning, but have other job options blacks do not possess.

If intergration is happening at all, it is to replace good black teachers with poor - less qualified white teachers. Non-tenure teachers may be moved. Theoretically teachers have a choice, but actually it's a Hobson's choice.

Five were quite mindful of intergration problems and relatively knowledgeable about them even when basically in a segregated situation. Only one seemed to just accept the status quo.

Two interviewees held dominant roles over whites, but only one real - the other one was "paper supervision".

#13 Integration had affected personally only two: One was a principal with white teachers and the other one was moving from a pseudo-integrated situation to an all black one. Both were very aware of discrimination.

#14 Inter-racial contacts in South

1. Trades people only - white --- limited area
2. Wide experiences
   a. Educational meetings - white black
   b. Black friends in Boston and Massachusetts
   c. Integrated church
   d. Studying at "white" institutions
   e. School and political contacts (money from black teacher for NAACP)
   f. Supervisor in army school -- wide contacts -- black - white
   g. 6 week institute N.Y. teacher coming in

Health program --- <u>not for BLACKS</u>

White grad school family white

In general, wider contacts with whites, northern blacks seemed to depend largely on out of south:

1. Contacts maintained with migrating blacks.
2. Sufficient ranking in educational system to be allowed to attend wide range of professional meetings.
3. Broading experience
   a. army attached to educational unit.
   b. graduate study in white institution
4. Job experiences
   - southern whites.

1. How did you hear about the institute?
2. What was your initial reaction?
3. People came to Institutes for a variety of reasons:
   a) What was your major professional reason?
   b) What was your major personal reason(s)?
4. What influence did personalized contacts with administrators of the Institute have on your decision?
5. What problem situations did you encounter?

a) release

b) transportation

c) finances

6. What will be expected of you after your return from the Institute?

a) from your employer?

b) from yourself?

c) from your family?

7. Do you anticipate any problems when you return?

a) working relationships?

b) inter-personal relationships?

8. What anxieties do you feel about the adequacy of your background for success in the program as you now understand it?

9. What are the skills and knowledge you now perceive as essential?

10. How difficult is it for you to view a testing program as a diagnostic tool for small group planning rather than as a judgment as personal deficiency?

11. What is the condition of school integrated in your area?

12. How is it affecting black teachers and black administrators?

13. How is it affecting you personally?

14. Some people believe that degrees of integration between whites and blacks are essential as knowledge is dispersed from center of understanding such as this University through this Institute. While mere contacts between diverse seeking common knowledge are not a panacea for our social ills. The absence of contacts blocks even the potential for understanding. I am interested in the experiences of social inter-action you have had with southern and northern whites and southern and northern blacks in various regions and under varying circumstances.

APPENDIX F

PARTICIPANT JOB CHANGES

1967 - 1970

NAME	YEAR	PREVIOUS	PRESENT
Caron, Thomas L.	1967	Principal Pollard School Plaistow, N. H.	SAME
Constantine, Francis X.	1967	Coordinator, Title I Riverside Park Jr. High Springfield, Vermont	SAME
Eno, Carroll J.	1967	Director of Guidance Woodstock Union High School Woodstock, Vermont	SAME
Hammond, Frank M.	1967	Coordinator, Title III Social Studies Teacher Sunapee Central School	Chairman, Social Studies Sunapee Central School
Harkness, Harvey F.	1967	N.H. Director, New England Education Assessment Project N.H. State Department of Ed.	Director, Teacher Ed. N.H. State Department of Education
Jacobs, Edwin Hall	1967	Director of Guidance Otter Valley Union High School Brandon, Vermont	SAME
LeClair, Richard E.	1967	Director of Guidance Sanborn Regional High School Kingston, N. H.	Director of Counseling Northern Exxex Community College, Haverhill, Ma.
Mitchell, Charles J.	1967	Consultant-Vocational Guidance N.H. State Department of Ed.	Director, Counseling N.H. College

NAME	YEAR	PREVIOUS	PRESENT
Porter, G. William	1967	Director of Guidance Georges Valley High School Thomaston, Maine	Consultant, Vocational Guidance, N.H. State Department of Education
Severson, Kenneth	1967	Principal Middlebury Union High School Middlebury, Vermont	SAME
Wallace, Roger A.	1967	Elementary Supervisory Washington West School District Waterbury, Vermont	Principal Adams School Waterbury, Vermont
Williams, Herbert O.	1967	Director of Guidance Newport High School Newport, N. H.	SAME
Wilson, Francis C.	1967	Superintendent Supervisory Union #14	SAME
Youngerman, Jr., Stephenson S.	1967	Superintendent Orange-Windsor School District South Royalton, Vermont	Superintendent Boise, Idaho

NAME	YEAR	PREVIOUS	PRESENT
Gardner, Richard A.	1968	Guidance Counselor Supervisory Union #40 Milford, N. H.	School Counselor Neurnberg Amer. High Neurnberg, Germany
Emerson, John Crosby	1968	Principal Bradford Academy	Math Teacher Champlain Valley High Hinesburg, Vermont
Flight, Gordon L.	1968	Principal Bethlehem School Bethlehem, N. H.	Elementary Consultant Groveton, N. H.
Graham, Geoffrey	1968	Superintendent Rutland Central Supervisory U. Rutland, Vermont	Assoc. Prof. of Education Lyndon State College Lyndonville, Vermont
Hall, Stanley L.	1968	Director of Guidance Mascoma Valley Regional High West Canaan, N. H.	Carpenter
Holt, Hugh	1968	School Counselor Raymond Consolidated	Elementary Counselor Derry Elementary
Kinney, Bruce J.	1968	Superintendent Maine School District #5	SAME
Lark, Bert W.	1968	Assistant Principal Windsor High School Windsor, Vermont	Principal B.U.H.S. Brattleboro, Vermont
Putz, George J.	1968	Anthropology and Social Rel. Franconia College	Self-employed

NAME	YEAR	PREVIOUS	PRESENT
Dixon, Ralph E.	1969	Teacher-Social Studies, English Newfound Memorial High School	SAME
Marston, Charles	1969	Consultant, N.H. State Department of Education	SAME
MacFarlane, Jr., James W.	1969	Head Teacher and Building Pr. Jennie D. Blake School	SAME
Darling, George Scott	1969	Guidance Counselor Kingswood Regional High School	Headmaster Coe-Brown Academy
Prevost, Fernand J.	1969	Consultant, N.H. State Department of Education	SAME
Simpson, Velma E.	1969	Guidance Counselor Rundlett Junior High School	SAME
Hackett, Francis D.	1969	Teacher-Industrial Arts Concord High School (Work-Study)	Department Head
Cameron, Philip J.	1969	Director of Guidance Waterville High School, Maine	SAME
Osborne, Douglas L.	1969	Director of Music Merrimack Valley High School	SAME
Feuerstein, Martin	1969	Principal Andover Elementary School	SAME

NAME	YEAR	PREVIOUS	PRESENT
Abbott, Douglas W.	1969	School Counselor Salem High School	SAME
Grodinsky, Harold M.	1969	Statistician Maine State Department of Ed.	Director, H.E.F.P. Maine State Department
Hokans, Corlyn B.	1969	Teacher Acworth Elementary School	Principal Acworth Elementary School
Winslow, Jr., Edward F.	1969	Teacher-Math & Physics Fall Mt. Regional	Craftsman-Teacher Fall Mt. Regional
Apt, Frederick S.	1969	Supervising Principal Whipple & Farragut Schools Portsmouth, N. H.	SAME
Harnois, Herman A.	1969	Instructor, Language Arts Swanton Jr.-Sr. High School	Principal Swanton Elementary School
Evans, Norman	1969	Principal Monadnock Regional School District	SAME
Barnes, Jr., Everett	1969	Principal Jr. High Social Studies Teacher Campton Central School	Admin. Asst. HEW Institute - 1970
Emilio, Ann D.	1969	School Counselor Salem High School	SAME
Lewis, George H.	1969	Chairman, Math Department Concord High School	Senior Consultant Planning & Evaluation N.H. State Department

NAME	YEAR	PREVIOUS	PRESENT
Andre, Richard Eugene	1970	Doctoral Candidate Graduate Research Assistant School of Education University of Massachusetts	SAME
Brooks, Marshall	1970	Evaluation Analysts State Dept. of Public Instr. Raleigh, N. C.	Educational Consultant
Burke, James M.	1970	Consultant, Measurement & Eval. School of Education University of Massachusetts	SAME
Finch, John M.	1970	PAERIS Fellowship University of Iowa	SAME
Garrett, James F.	1970	Math Teacher Alton Park Jr. High Cattanooga, Tennessee	Asst. Principal
Hidlerbrand, John A.	1970	Teacher, Parkway Jr. High School Miami, Florida	Supervisor of Evaluation
Johnson, Mabel M.	1970	Reading Coordinator Mt. Bayou District Schools Bayou, Mississippi	SAME
Kilbert, Charles J.	1970	Assistant Principal Alfred C. Priestley Jr. High New Orleans, Louisiana	Supervisor, Adult Basic Education

NAME	YEAR	PREVIOUS	PRESENT
King, Gerald	1970	Graduate Student University of Texas	Director of Planning & Informational Systems
Lehman, Robert Arthur	1970	Staff Associate Nova University	Evaluation Coordinator Montana State Department
Morrison, Max	1970	Chief, Title III Iowa State Department of Public Instruction	Director, Planning Research & Evaluation
Moseley, Frederick A.	1970	Principal Smith Elementary Waco, Texas	SAME
Moses, Augustine H.	1970	Acting Assistant Director Trust Territory Dept. of Ed. Saipan, Mariana Islands	Coordinator, Secondary Education
Myers, Donald E.	1970	Student, Nova University Fort Lauderdale, Florida	SAME
Owens, Sharynn LeRoy	1970	Instructor, History Knoxville College Knoxville, Tennessee	SAME
Pickard, H. Stuart	1970	Evaluation-Div. of Instruction N.H. State Dept. of Education	Evaluation-D.E.D. SAME

NAME	YEAR	PREVIOUS	PRESENT
Piters, Ronald	1970	University Fellow Utah State University	Project Director Office of Superintendent of Public Instruction Helena, Montana
Ricci, Robert	1970	Coordinator, Title III, E.S.E.A., Rhode Island Agency for Elementary and Secondary Education	SAME
Simonini, Louis F.	1970	Consultant, E.E.O. Rhode Island State Department of Education	Student University of Miami
Sumida, Janet Itsuyo	1970	Staff Specialist II Hawaii State Department of Education	Doctoral Candidate Ohio State University
Turner, Lucious	1970	Teacher Bentley High School Jackson, Mississippi	SAME
Williamson, Jr., Charles W.	1970	Assistant Prof. of Sociology Knoxville College Knoxville, Tennessee	SAME

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